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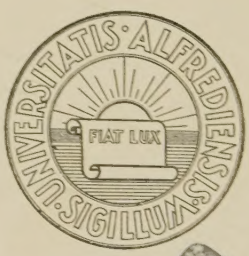

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ESSAYS FOR COLLEGE MEN

Second Series

Chosen by

NORMAN FOERSTER
FREDERICK A. MANCHESTER
KARL YOUNG

"the power of conduct, the power of intellect and knowledge, the power of beauty, and the power of social life and manners"

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ESSAYS FOR COLLEGE MEN

WHAT IS A COLLEGE FOR?[1]

WOODROW WILSON

It may seem singular that at this time of day and in this confident century it should be necessary to ask, What is a college for? But it has become necessary. I take it for granted that there are few real doubts concerning the question in the minds of those who look at the college from the inside and have made themselves responsible for the realization of its serious purposes; but there are many divergent opinions held concerning it by those who, standing on the outside, have pondered the uses of the college in the life of the country; and their many varieties of opinion may very well have created a confusion of counsel in the public mind.

They are, of course, entirely entitled to their independent opinions and have a right to expect that full consideration will be given what they say by those who are in fact responsible. The college is for the use of the nation, not for the satisfac-

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tion of those who administer it or for the carrying out of their private views. They may speak as experts and with a very intimate knowledge, but they also speak as servants of the country and must be challenged to give reasons for the convictions they entertain. Controversy, it may be, is not profitable in such matters, because it is so easy, in the face of opposition, to become a partisan of one's own views and exaggerate them in seeking to vindicate and establish them; but an explicit profession of faith cannot fail to clear the air, and to assist the thinking both of those who are responsible and of those who only look on and seek to make serviceable comment.

Why, then, should a man send his son to college when school is finished; or why should he advise any youngster in whom he is interested to go to college? What does he expect and desire him to get there? The question might be carried back and asked with regard to the higher schools also to which lads resort for preparation for college. What are they meant to get there? But it will suffice to centre the question on the college. What should a lad go to college for,—for work, for the realization of a definite aim, for discipline and a severe training of his faculties, or for relaxation, for the release and exercise of his social powers, for the broadening effects of life in a sort of miniature world in which study is only one among

many interests? That is not the only alternative suggested by recent discussions. They also suggest a sharp alternative with regard to the character of the study the college student should undertake. Should he seek at college a general discipline of his faculties, a general awakening to the issues and interests of the modern world, or should he, rather, seek specially and definitely to prepare himself for the work he expects to do after he leaves college, for his support and advancement in the world? The two alternatives are very different. The one asks whether the lad does not get as good a preparation for modern life by being manager of a foot-ball team with a complicated programme of intercollegiate games and trips away from home as by becoming proficient in mathematics or in history and mastering the abstract tasks of the mind; the other asks whether he is not better prepared by being given the special skill and training of a particular calling or profession, an immediate drill in the work he is to do after he graduates, than by being made a master of his own mind in the more general fields of knowledge to which his subsequent calling will be related, in all probability, only as every undertaking is related to the general thought and experience of the world.

"Learning" is not involved. No one has ever dreamed of imparting learning to undergraduates.

It cannot be done in four years. To become a man of learning is the enterprise of a life-time. The issue does not rise to that high ground. The question is merely this: do we wish college to be, first of all and chiefly, a place of mental discipline or only a school of general experience; and, if we wish it to be a place of mental discipline, of what sort do we wish the discipline to be,—a general awakening and release of the faculties, or a preliminary initiation into the drill of a particular vocation?

These are questions which go to the root of the matter. They admit of no simple and confident answer. Their roots spring out of life and all its varied sources. To reply to them, therefore, involves an examination of modern life and an assessment of the part an educated man ought to play in it,—an analysis which no man may attempt with perfect self-confidence. The life of our day is a very complex thing which no man can pretend to comprehend in its entirety.

But some things are obvious enough concerning it. There is an uncommon challenge to effort in the modern world, and all the achievements to which it challenges are uncommonly difficult. Individuals are yoked together in modern enterprise by a harness which is both new and inelastic. The man who understands only some single process, some single piece of work which he has been set

to do, will never do anything else, and is apt to be deprived at almost any moment of the opportunity to do even that, because processes change, industry undergoes instant revolutions. New inventions, fresh discoveries, alterations in the markets of the world throw accustomed methods and the men who are accustomed to them out of date and use without pause or pity. The man of special skill may be changed into an unskilled laborer over night. Moreover, it is a day in which no enterprise stands alone or independent, but is related to every other and feels changes in all parts of the globe. The men with mere skill, with mere technical knowledge, will be mere servants perpetually, and may at any time become useless servants, their skill gone out of use and fashion. The particular thing they do may become unnecessary or may be so changed that they cannot comprehend or adjust themselves to the change.

These, then, are the things the modern world must have in its trained men, and I do not know where else it is to get them if not from its educated men and the occasional self-developed genius of an exceptional man here and there. It needs, at the top, not a few, but many men with the power to organize and guide. The college is meant to stimulate in a considerable number of men what would be stimulated in only a few if we were to depend entirely upon nature and circumstance.

Below the ranks of generalship and guidance, the modern world needs for the execution of its varied and difficult business a very much larger number of men with great capacity and readiness for the rapid and concentrated exertion of a whole series of faculties: planning faculties as well as technical skill, the ability to handle men as well as to handle tools and correct processes, faculties of adjustment and adaptation as well as of precise execution,—men of resource as well as knowledge. These are the athletes, the athletes of faculty, of which our generation most stands in need. All through its ranks, besides, it needs masterful men who can acquire a working knowledge of many things readily, quickly, intelligently, and with exactness,—things they had not foreseen or prepared themselves for beforehand, and for which they could not have prepared themselves beforehand. Quick apprehension, quick comprehension, quick action are what modern life puts a premium upon,—a readiness to turn this way or that and not lose force or momentum.

To me, then, the question seems to be, Shall the lad who goes to college go there for the purpose of getting ready to be a servant merely, a servant who will be nobody and who may become useless, or shall he go there for the purpose of getting ready to be a master adventurer in the field of modern opportunity?

We must expect hewers of wood and drawers of water to come out of the colleges in their due proportion, of course, but I take it for granted that even the least gifted of them did not go to college with the ambition to be nothing more. And yet one has hardly made the statement before he begins to doubt whether he can safely take anything for granted. Part of the very question we are discussing is the ambition with which young men now go to college. It is a day when a college course has become fashionable,—but not for the purpose of learning, not for the purpose of obtaining a definite preparation for anything,—no such purpose could become *fashionable*. The clientage of our colleges has greatly changed since the time when most of the young men who resorted to them did so with a view to entering one or other of the learned professions. Young men who expect to go into business of one kind or another now outnumber among our undergraduates those who expect to make some sort of learning the basis of their work throughout life; and I dare say that they generally go to college without having made any very definite analysis of their aim and purpose in going. Their parents seem to have made as little.

The enormous increase of wealth in the country in recent years, too, has had its effect upon the colleges,—not in the way that might have been

expected,—not, as yet, by changing the standard of life to any very noticeable extent or introducing luxury and extravagance and vicious indulgence. College undergraduates have usually the freshness of youth about them, out of which there springs a wholesome simplicity, and it is not easy to spoil them or to destroy their natural democracy. They make a life of their own and insist upon the maintenance of its standards. But the increase of wealth has brought into the colleges, in rapidly augmenting numbers, the sons of very rich men, and lads who expect to inherit wealth are not as easily stimulated to effort, are not as apt to form definite and serious purposes, as those who know that they must whet their wits for the struggle of life.

There was a time when the mere possession of wealth conferred distinction; and when wealth confers distinction it is apt to breed a sort of consciousness of opportunity and responsibility in those who possess it and incline them to seek serious achievement. But that time is long past in America. Wealth is common. And, by the same token, the position of the lad who is to inherit it is a peculiarly disadvantageous one, if the standard of success is to rise above mediocrity. Wealth removes the necessity for effort, and yet effort is necessary for the attainment of distinction, and very great effort at that, in the modern

world, as I have already pointed out. It would look as if the ordinary lad with expectations were foredoomed to obscurity; for the ordinary lad will not exert himself unless he must.

We live in an age in which no achievement is to be cheaply had. All the cheap achievements, open to amateurs, are exhausted and have become commonplace. Adventure, for example, is no longer extraordinary: which is another way of saying that it is commonplace. Any amateur may seek and find adventure; but it has been sought and had in all its kinds. Restless men, idle men, chivalrous men, men drawn on by mere curiosity and men drawn on by love of the knowledge that lies outside books and laboratories, have crossed the whole face of the habitable globe in search of it, ferreting it out in corners even, following its by-paths and beating its coverts, and it is nowhere any longer a novelty or distinction to have discovered and enjoyed it. The whole round of pleasure, moreover, has been exhausted time out of mind, and most of it discredited as not pleasure after all, but just an expensive counterfeit; so that many rich people have been driven to devote themselves to expense regardless of pleasure. No new pleasure, I am credibly informed, has been invented within the memory of man. For every genuine thrill and satisfaction, therefore, we are apparently, in this sophisticated world, shut in to work,

to modifying and quickening the life of the age. If college be one of the highways to life and achievement, it must be one of the highways to work.

The man who comes out of college into the modern world must, therefore, have got out of it, if he has not wasted four vitally significant years of his life, a quickening and a training which will make him in some degree a master among men. If he has got less, college was not worth his while. To have made it worth his while he must have got such a preparation and development of his faculties as will give him movement as well as mere mechanical efficiency in affairs complex, difficult, and subject to change. The word efficiency has in our day the power to think at the centre of it, the power of independent movement and initiative. It is not merely the suitability to be a good tool, it is the power to wield tools, and among the tools are men and circumstances and changing processes of industry, changing phases of life itself. There should be technical schools a great many and the technical schools of America should be among the best in the world. The men they train are indispensable. The modern world needs more tools than managers, more workmen than master workmen. But even the technical schools must have some thought of mastery and adaptability in their processes; and the colleges, which are not tech-

nical schools, should think of that chiefly. We must distinguish what the college is for, without disparaging any other school, of any other kind. It is for the training of the men who are to rise above the ranks.

That is what a college is for. What it does, what it requires of its undergraduates and of its teachers, should be adjusted to that conception. The very statement of the object, which must be plain to all who make any distinction at all between a college and a technical school, makes it evident that the college must subject its men to a general intellectual training which will be narrowed to no one point of view, to no one vocation or calling. It must release and quicken as many faculties of the mind as possible,—and not only release and quicken them but discipline and strengthen them also by putting them to the test of systematic labor. Work, definite, exacting, long continued, but not narrow or petty or merely rule of thumb, must be its law of life for those who would pass its gates and go out with its authentication.

By a general training I do not mean vague spaces of study, miscellaneous fields of reading, a varied smattering of a score of subjects and the thorough digestion of none. The field of modern knowledge is extremely wide and varied. After a certain number of really fundamental subjects

have been studied in the schools, the college undergraduate must be offered a choice of the route he will travel in carrying his studies further. He cannot be shown the whole body of knowledge within a single curriculum. There is no longer any single highway of learning. The roads that traverse its vast and crowded spaces are not even parallel, and four years is too short a time in which to search them all out. But there is a general programme still possible by which the college student can be made acquainted with the field of modern learning by sample, by which he can be subjected to the several kinds of mental discipline, —in philosophy, in some one of the great sciences, in some one of the great languages which carry the thought of the world, in history and in politics, which is its framework,—which will give him valid naturalization as a citizen of the world of thought, the world of educated men,—and no smatterer merely, able barely to spell its constitution out, but a man who has really comprehended and made use of its chief intellectual processes and is ready to lay his mind alongside its tasks with some confidence that he can master them and can understand why and how they are to be performed. This is the general training which should be characteristic of the college, and the men who undergo it ought to be made to undergo it with deep seriousness and diligent labor; not as soft amateurs

with whom learning and its thorough tasks are side interests merely, but as those who approach life with the intention of becoming professionals in its fields of achievement.

Just now, where this is attempted, it seems to fail of success. College men, it is said, and often said with truth, come out undisciplined, untrained, unfitted for what they are about to undertake. It is argued therefore, that what they should have been given was special vocational instruction; that if they had had that they would have been interested in their work while they were undergraduates, would have taken it more seriously, and would have come out of college ready to be used, as they now cannot be. No doubt that is to be preferred to a scattered and aimless choice of studies, and no doubt what the colleges offer is miscellaneous and aimless enough in many cases; but, at best, these are very hopeful assumptions on the part of those who would convert our colleges into vocational schools. They are generally put forward by persons who do not know how college life and work are now organized and conducted. I do not wonder that they know little of what has happened. The whole thing is of very recent development, at any rate in its elaborate complexity. It is a growth, as we now see it, of the last ten or twelve years; and even recent graduates of our colleges would rub their eyes incredu-

lously to see it if they were to stand again on the inside and look at it intimately.

What has happened is, in general terms, this: that the work of the college, the work of its class-rooms and laboratories, has become the merely formal and compulsory side of its life, and that a score of other things, lumped under the term "undergraduate activities," have become the vital, spontaneous, absorbing realities for nine out of every ten men who go to college. These activities embrace social, athletic, dramatic, musical, literary, religious, and professional organizations of every kind, besides many organized for mere amusement and some, of great use and dignity, which seek to exercise a general oversight and sensible direction of college ways and customs. Those which consume the most time are, of course, the athletic, dramatic, and musical clubs, whose practices, rehearsals, games, and performances fill the term time and the brief vacations alike. But it is the social organizations into which the thought, the energy, the initiative, the enthusiasm of the largest number of men go, and go in lavish measure.

The chief of these social organizations are residential families,—fraternities, clubs, groups of house-mates of one kind or another,—in which, naturally enough, all the undergraduate interests, all the undergraduate activities of the college have

their vital centre. The natural history of their origin and development is very interesting. They grew up very normally. They were necessary because of what the college did not do.

Every college in America, at any rate every college outside a city, has tried to provide living rooms for its undergraduates, dormitories in which they can live and sleep and do their work outside the classroom and the laboratory. Very few colleges whose numbers have grown rapidly have been able to supply dormitories enough for all their students, and some have deliberately abandoned the attempt, but in many of them a very considerable proportion of the undergraduates live on the campus, in college buildings. It is a very wholesome thing that they should live thus under the direct influence of the daily life of such a place and, at least in legal theory, under the authority of the university of which the college forms a principal part. But the connection between the dormitory life and the real life of the university, its intellectual tasks and disciplines, its outlook upon the greater world of thought and action which lies beyond, far beyond, the boundaries of campus and classroom, is very meagre and shadowy indeed. It is hardly more than atmospheric, and the atmosphere is very attenuated, perceptible only by the most sensitive.

Formerly, in more primitive, and I must say

less desirable, days than these in which we have learned the full vigor of freedom college tutors and proctors lived in the dormitories and exercised a precarious authority. The men were looked after in their rooms and made to keep hours and observe rules. But those days are happily gone by. The system failed of its object. The lads were mischievous and recalcitrant, those placed in authority over them generally young and unwise; and the rules were odious to those whom they were meant to restrain. There was the atmosphere of the boarding-school about the buildings, and of a boarding-school whose pupils had outgrown it. Life in college dormitories is much pleasanter now and much more orderly, because it is free and governed only by college opinion, which is a real, not a nominal, master. The men come and go as they please and have little consciousness of any connection with authority or with the governing influences of the university in their rooms, except that the university is their landlord and makes rules such as a landlord may make.

Formerly, in more primitive and less pleasant days, the college provided a refectory or "commons" where all undergraduates had their meals, a noisy family. It was part of the boarding-school life; and the average undergraduate had outgrown it as consciously as he had outgrown the futile discipline of the dormitory. Now nothing

of the kind is attempted. Here and there, in connection with some large college which has found that the boarding-houses and restaurants of the town have been furnishing poor food at outrageous prices to those of its undergraduates who could not otherwise provide for themselves, will be found a great "commons," at which hundreds of men take their meals, amid the hurly-burly of numbers, without elegance or much comfort, but nevertheless at a well-spread table where the food is good and the prices moderate. The undergraduate may use it or not as he pleases. It is merely a great co-operative boarding-place, bearing not even a family resemblance to the antique "commons." It is one of the conveniences of the place. It has been provided by the university authorities, but it might have been provided in some other way and have been quite independent of them; and it is usually under undergraduate management.

Those who do not like the associations or the fare of such a place provide for themselves elsewhere, in clubs or otherwise,—generally in fraternity houses. At most colleges there is no such common boarding-place, and all must shift for themselves. It is this necessity in the one case and desire in the other that has created the chief complexity now observable in college life and which has been chiefly instrumental in bringing about

that dissociation of undergraduate life from the deeper and more permanent influences of the university which has of recent years become so marked and so significant.

Fraternity chapters were once—and that not so very long ago—merely groups of undergraduates who had bound themselves together by the vows of various secret societies which had spread their branches among the colleges. They had their fraternity rooms, their places of meeting; they were distinguished by well known badges and formed little coteries distinguishable enough from the general body of undergraduates, as they wished to be; but in all ordinary matters they shared the common life of the place. The daily experiences of the college life they shared with their fellows of all kinds and all connections, in an easy democracy; their contacts were the common contacts of the classroom and the laboratory not only, but also of the boarding-house table and of all the usual undergraduate resorts. Members of the same fraternity were naturally enough inclined to associate chiefly with one another, and were often, much too often, inclined, in matters of college "politics," to act as a unit and in their own interest; but they did not live separately. They did not hold aloof or constitute themselves separate families, living apart in their own houses, in privacy. Now all that is changed. Every fraternity

has its own house, equipped as a complete home. The fraternity houses will often be the most interesting and the most beautiful buildings a visitor will be shown when he visits the college. In them members take all their meals, in them they spend their leisure hours and often do their reading,—for each house has its library,—and in them many of the members, as many as can be accommodated, have their sleeping rooms and live, because the college has not dormitories enough to lodge them or because they prefer lodging outside the dormitories. In colleges where there are no fraternities, clubs of one sort or another take their places, build homes of their own, enjoy a similar privacy and separateness, and constitute the centre of all that is most comfortable and interesting and attractive in undergraduate life.

I am pointing out this interesting and very important development, not for the purpose of criticising it, but merely to explain its natural history and the far-reaching results it has brought about. The college having determined, wisely enough, some generation or two ago, not to be any longer a boarding-school, has resolved itself into a mere teaching machine, with the necessary lecture rooms and laboratories attached and sometimes a few dormitories, which it regards as desirable but not indispensable, and has resigned into the hands of the undergraduates themselves the whole management

of their life outside the classroom; and not only its management but also the setting up of all its machinery of every kind,—as much as they please, —and the constitution of its whole environment, so that teachers and pupils are not members of one university body but constitute two bodies sharply distinguished,—and the undergraduate body the more highly organized and independent of the two. They parley with one another, but they do not live with one another, and it is much easier for the influence of the highly organized and very self-conscious undergraduate body to penetrate the faculty than it is for the influence of the faculty to permeate the undergraduates.

It was inevitable it should turn out so in the circumstances. I do not wonder that the consequences were not foreseen and that the whole development has crept upon us almost unawares. But the consequences have been very important and very far-reaching. It is easy now to see that if you leave undergraduates entirely to themselves, to organize their own lives while in college as they please,—and organize it in some way they must if thus cast adrift,—that life, and not the deeper interests of the university, will presently dominate their thoughts, their imaginations, their favorite purposes. And not only that. The work of administering this complex life, with all its organizations and independent interests, successfully

absorbs the energies, the initiative, the planning and originating powers of the best men among the undergraduates. It is no small task. It would tax and absorb older men; and only the finer, more spirited, more attractive, more original and effective men are fitted for it or equal to it, where leadership goes by gifts of personality as well as by ability. The very men the teacher most desires to get hold of and to enlist in some enterprise of the mind, the very men it would most reward him to instruct and whose training would count for most in leadership outside of college, in the country at large, and for the promotion of every interest the nation has, the natural leaders and doers, are drawn off and monopolized by these necessary and engaging undergraduate undertakings. The born leaders and managers and originators are drafted off to "run the college" (it is in fact nothing less), and the classroom, the laboratory, the studious conference with instructors get only the residuum of their attention, only what can be spared of their energy—are secondary matters where they ought to come first. It is the organization that is at fault, not the persons who enter into it and are moulded by it. It cannot turn out otherwise in the circumstances. The side shows are so numerous, so diverting,—so important, if you will,—that they have swallowed up the circus, and those who perform in the main tent must

often whistle for their audiences, discouraged and humiliated.

Such is college life nowadays, and such its relation to college work and the all-important intellectual interests which the colleges are endowed and maintained to foster. I need not stop to argue that the main purposes of education cannot be successfully realized under such conditions. I need not stop to urge that the college was not and can never be intended for the uses it is now being put to. A young man can learn to become the manager of a foot-ball team or of a residential club, the leader of an orchestra or a glee club, the star of amateur theatricals, an oarsman or a chess player without putting himself to the trouble or his parents to the expense of four years at a college. These are innocent enough things for him to do and to learn, though hardly very important in the long run; they may, for all I know, make for efficiency in some of the simpler kinds of business; and no wise man who knows college lads would propose to shut them off from them or wish to discourage their interest in them. All work and no play makes Jack a dull boy, not only, but may make him a vicious boy as well. Amusement, athletic games, the zest of contest and competition, the challenge there is in most college activities to the instinct of initiative and the gifts of leadership and achievement,—all these are wholesome means

of stimulation, which keep young men from going stale and turning to things that demoralize. But they should not assume the front of the stage where more serious and lasting interests are to be served. Men cannot be prepared by them for modern life.

The college is meant for a severer, more definite discipline than this: a discipline which will fit men for the contests and achievements of an age whose every task is conditioned upon some intelligent and effective use of the mind, upon some substantial knowledge, some special insight, some trained capacity, some penetration which comes from study, not from natural readiness or mere practical experience.

The side shows need not be abolished. They need not be cast out or even discredited. But they must be subordinated. They must be put in their natural place as diversions, and ousted from their present dignity and pre-eminence as occupations.

And this can be done without making of the college again a boarding-school. The characteristic of the boarding-school is that its pupils are in all things in tutelage, are under masters at every turn of their life, must do as they are bidden, not in the performance of their set tasks only, but also in all their comings and goings. It is this characteristic that made it impossible and undesirable to continue the life of the boarding-school

into the college, where it is necessary that the pupil should begin to show his manhood and make his own career. No one who knows what wholesome and regulated freedom can do for young men ought ever to wish to hail them back to the days of childish discipline and restraint of which the college of our grandfathers was typical. But a new discipline is desirable, is absolutely necessary, if the college is to be recalled to its proper purpose, its bounden duty. It cannot perform its duty as it is now organized.

The fundamental thing to be accomplished in the new organization is, that, instead of being the heterogeneous congeries of petty organizations it now is, instead of being allowed to go to pieces in a score of fractions free to cast off from the whole as they please, it should be drawn together again into a single university family of which the teachers shall be as natural and as intimate members as the undergraduates. The " life " of the college should not be separated from its chief purposes and most essential objects, should not be contrasted with its duties and in rivalry with them. The two should be but two sides of one and the same thing; the association of men, young and old, for serious mental endeavor and also, in the intervals of work, for every wholesome sport and diversion. Undergraduate life should not be in rivalry and contrast with undergraduate duties:

undergraduates should not be merely in attendance upon the college, but parts of it on every side of its life, very conscious and active parts. They should consciously live its whole life,—not under masters, as in school, and yet associated in some intimate daily fashion with their masters in learning: so that learning may not seem one thing and life another. The organizations whose objects lie outside study should be but parts of the whole, not set against it, but included within it.

All this can be accomplished by a comparatively simple change of organization which will make master and pupil members of the same free, self-governed family, upon natural terms of intimacy. But how it can be done is not our present interest. That is another story. It is our present purpose merely to be clear what a college is for. That, perhaps, I have now pointed out with sufficient explicitness. I have shown the incompatibility of the present social organization of our colleges with the realization of that purpose only to add emphasis to the statement of what that purpose is. Once get that clearly established in the mind of the country, and the means of realizing it will readily and quickly enough be found. The object of the college is intellectual discipline and moral enlightenment, and it is the immediate task of those who administer the colleges of the country to find the means and the organization by which

that object can be attained. Education is a process and, like all other processes, has its proper means and machinery. It does not consist in courses of study. It consists of the vital assimilation of knowledge, and the mode of life, for the college as for the individual, is nine parts of the digestion.

ON GENERAL AND PROFESSIONAL EDUCATION [1]

JOHN CAIRD

I HAVE more than once on similar occasions adverted to a problem which is one of the most important, as it is one of the most difficult, in the science of education—namely, how to limit the range of study without producing intellectual narrowness—how to contract the field of thought without contracting the mind of the thinker. Limitation in the first sense we must have, if only from the vast and ever-increasing extent of the field of knowledge, and the more and more definite specialization of its various departments. Selection on the part of the individual student is inevitable, and the plausible solution which occurs to many minds is that, seeing he cannot attempt to know everything, he should be guided in what he selects or omits by his individual aptitudes and by that which those aptitudes should determine —the special calling or career in life to which he is destined.

[1] An address delivered to the University of Glasgow on April 13, 1897.

The time has been when the notion of universal knowledge, the attempt to gain something more than a superficial acquaintance with all the various departments of human thought, was not so absurd as now it seems to be. When books were few and life more leisurely, when the vast domain of physical science had scarcely begun to be explored, and even its principles and methods were not understood; when the sciences of philology and of historical criticism were yet in their infancy; when political economy, sociology, and kindred sciences had not yet begun to be, it was possible, at least for some minds, to grapple not unsuccessfully with almost all the main subjects of human thought, and to become conversant with every important work in the whole range of literature. But we have fallen on other and different times. In our day it is impossible, not merely for the average student, but for even those of the greatest ability and application, to advance far in the work of acquiring knowledge without discovering that limitation and condensation are the conditions of success. Encyclopedic knowledge can now be only another name for shallowness and superficiality. To attain the highest proficiency in any one branch of literature or science—or a fairly accurate acquaintance with two or three—the most ambitious student must be content to be comparatively ignorant of everything else, and to look on whole

departments of thought and research as for him practically proscribed. To a certain extent we must all be either specialists or amateurs; we must make our choice between real and accurate, but limited, knowledge and mere dilettantism.

Since, then, limitation is inevitable, on what principle shall we proceed in determining what is to be excluded and what retained? The answer which to many seems to be beyond dispute is that the direction and limitation of our studies should from the very outset be determined by the use we are to make of them in our future life. If we cannot learn everything, should we not, in what we do learn, have regard mainly, if not exclusively, to the account to which our acquirements can be turned in the particular calling or profession to which we are destined? For most of us the exigencies of life are too pressing, the period of education too brief, to indulge in high-flown schemes of general culture. The result aimed at in our case cannot be merely to weave out of the raw material of mind the best possible specimen of educated intelligence that can be extracted from it, but to produce what would yield robust service in a particular line of work, make us capable men of business, clever, well-informed, and successful lawyers, doctors, divines. And this principle, it would be said, is becoming more and more recognized in our scheme of University education, in

which not only do professional studies occupy a large and increasing space, but by the introduction of new subjects into the non-professional or arts curriculum, a wider option in accordance with individual aptitudes and the future vocation of the student has been introduced.

But though there is no doubt a measure of truth in this popular and common-sense solution of the problem, there are one or two things to be considered before we adopt it as a complete and adequate solution. Education cannot be mainly guided by professional aims, because, in the first place, education is needed to guide us in the selection of a profession, to enable us to know what our special calling or profession is; in the second place, to protect us against the narrowing influence of all, even the so-called liberal professions; and, in the third place, to fit us for important social duties which lie outside of every man's professional work.

A man's education cannot be determined altogether by regard to his future calling, seeing that it is one end of a good education to enable a man to find out what his true vocation is. Though it is often determined by accident, the selection of one's calling in life is at once one of the most important and one of the most difficult decisions which a man can form. Perhaps the fair portion of my auditory will forgive me for saying that it

is a choice as critical as that which determines a certain very close relationship in life; and I do not know whether it is not often made with as little reflection in the one case as in the other, and whether the consequences of a wrong choice are not as fatal and sometimes as irremediable.

Our usefulness, success, and happiness in life depend unquestionably not a little on the measure in which we are in harmony with our place and work in the world. How then, the question arises, shall we find out what that place and work is? For one thing this, I think it will be obvious, is a question the right answer to which implies a measure of judgment, forethought, reflection, and a range of information and intellectual experience such as presuppose and are the best results of a liberal education.

We do not come into the world each ticketed off by any outward mark for our special destination. There may perhaps be some minds of such marked individuality as to betray at a very early period of life, there may be even infant prodigies, in whom the future poet or artist, the coming orator or statesman, can be discerned ere he has well left the nursery; but I fear that such forecastings are in general due only to partial or parental observations, or to the biographer's tendency to read back the success of subsequent life into the incidents of childhood. To an impartial

observer, so far as mental characteristics go, all babies are very much alike. The inarticulate vocal manifestations of the future poet or musician are no more melodious than those of his tuneless brother. The incipient divine or philosopher does not foreshadow his career in a premature air of thoughtful gravity impressed on his countenance. Even when we come to the stage at which education begins—a few rare instances of precocity excepted—individual aptitude is only very slightly discernible. It is not till a later, in the case of some of the best minds a much later period—viz., when the schoolboy stage is past, and that of student life has considerably advanced—that a youth can be said to be possessed of the materials by which the choice of a career can be wisely determined; in other words, of that knowledge of the various branches of human thought, and that experimental knowledge of himself and of the direction and limits of his powers, by which he becomes capable of such a decision as to his future destiny.

And so in the process of education there is room for an intermediate or transition stage between schoolboy discipline and strictly professional culture. There are many minds in which the intellectual instincts and aptitudes are slow to betray themselves; and whether the latent genius be for letters or art or science or the industrial arts or

practical life or politics, it has been only after the rugged propædeutic of school discipline has been long left behind, and the wonder and delight of the world of thought has become a growing experience, and the free play of their powers under the discipline of a general, many-sided culture has begun to be felt, that they have come to discern where in the wide field of human activity lies their special vocation.

Another reason, I have said, why in education we should not have regard exclusively or mainly to the student's future calling or profession, is that it is one great aim of education to protect us from the narrowing influence of all, even of the so-called liberal, professions. I must pass by this point, however, with only a single remark. The division of labor, as has been often pointed out, is subject to this drawback, that it tends to sacrifice the full development of the individual to the exigencies of society. Professional or technical excellence would seem to be incompatible with symmetry and width of culture. It often leads not merely to imperfect but also to unequal or one-sided development. This is most obvious in the case of manual or mechanical callings. Each trade or craft exercises constantly one member or faculty or class of faculties, leaving the others comparatively inactive—runs the whole physical energy into one limb or organ, and so distends

it to exaggerated dimensions, whilst the others are proportionately dwarfed or enfeebled.

And the same is in a measure true of intellectual work. It is the tendency of the various professions to call into play a limited class of mental activities, to dam up the spiritual force that is in a man into a particular channel, and so leave the non-professional regions of his nature comparatively dry and barren. Not only are most men apt to form an exaggerated estimate of the importance of that which is their daily occupation, but they get the stamp of the shop impressed upon them, and carry their technical views and principles of judgment about with them wherever they go. There are many men one meets in society whose only alternative is to be technical or dull, to be dumb or learnedly loquacious. The narrowing tendency in question shows itself by engendering in the mind a host of class prejudices, by indisposing it for wide, impartial, tolerant views; by depriving it of flexibility and the capacity to look at things from the point of view of other minds and the wider one of reason itself; finally, by breeding in us a professional selfishness—a tendency to view all measures and plans of improvement, not by their bearing on the general welfare, but on the interests of a class, so that the first question is not—Is this opinion true, is this political or ecclesiastical reform just, will it

redress some crying wrong, hinder or help the national weal? but—Will it promote or hinder the dignity, power, and wealth of the order to which I belong? Is our craft in danger and the shrine of the great goddess Diana, whom all Asia and the world worship?

I shall not prosecute this part of our subject any further; but enough, I think, has been said to show the importance of a general, as distinguished from a special and professional training. As the pettiness of mind incident to life in a small circle is best corrected by foreign travel, so the remedy for intellectual narrowness is to be free in the wide world of thought. Converse with many cities and men disabuses the mind of the parochial standard of judgment. So the best cure for intellectual narrowness is the capacity to escape from the confined atmosphere of class or craft into the wide domain of letters, of science, of philosophy, of art. The physician or lawyer who is a classical scholar, or at any rate conversant with the treasures of either ancient or modern literature, capable of finding purest enjoyment over the pages of its poets, historians, philosophers, is not likely to sink into a professional hack. The divine who is also a man of scientific or scholarly tastes is at least not likely to settle into the vulgar zealot, absorbing his soul in the petty politics of a sect or regarding its standards of orthodoxy as

pillars round which the universe revolves. Be it yours, in this ancient home of learning, to seek after that preservative from narrowness which its studies afford.

One of the most precious characteristics of such institutions as this is what I may venture to designate the unworldliness of the spirit which pervades them. It is surely no little gain for society that at the impressible stage of transition between boyhood and manhood young men should be made to breathe for a term of years an intellectual atmosphere other and purer than that which but too often pervades the world on which they are about to enter—that they should for a time be members of a society in which the scramble for material gain, the fierce and often vulgarizing competition for worldly preferment, are as yet things unknown. To say this, implies no high-flown, sentimental disparagement of the aims and ambitions that play so large a part in the world, and lend movement, activity, and interest to the drama of life. But it is not to the love of money or the love of social advancement, or even mainly to the love of honor and reputation, that we here appeal. There is a passion purer, loftier, and, in those who are capable of its inspiration, more intense than any of these—the love of truth, the passion for knowledge and intellectual attainment for its own sake; and it is our glory and boast that it is this

which constitutes the distinctive characteristic, the very breath and life of such places as this.

Poor and vain would be the result of years you have passed in this place of study if, beyond the hope of future success in the world, beyond all ulterior aims and ambitions, there has not been awakened in you some breath of the genuine student's ardor, some sense of the worth and joy of intellectual effort for its own sake. On the other hand, if you have learned here, apart from the use of your studies as a preparation for your work in the world, to know with appreciative sympathy something of what the world's greatest minds have thought or its sweetest poets have sung, or of what in ancient or modern times its greatest workers have done for the progress of the race; or if there has been put into your hands the key by which science unlocks the secrets of nature, so that a treasure of mental resource will all through your future life be open to you; still more, if you have gained or begun to gain here the precious possession of disciplined faculties, of a trained intelligence, strength of judgment, refinement of taste, and habits of application and self-command, —then, be your future career what it may— obscure, unrewarded, unknown to fame, or brilliant and successful as the most sanguine imagination can picture it—not in vain for you will these eventful years have passed. For you will have got

from them that which in all the future will furnish you with an escape from the pettiness and narrowness, the vulgarizing and wearing anxieties that beset most of us amidst our daily work; that will provide you with new uses for wealth and property if they come to you, and, on the other hand, next to religion, will prove the truest consolation of adversity and disappointment, of worldly care and sorrow.

ACADEMIC LEADERSHIP[1]

PAUL ELMER MORE

Any one who has traveled much about the country of recent years must have been impressed by the growing uneasiness of mind among thoughtful men. Whether in the smoking car, or the hotel corridor, or the college hall, everywhere, if you meet them off their guard and stripped of the optimism which we wear as a public convention, you will hear them saying in a kind of amazement, "What is to be the end of it all?" They are alarmed at the unsettlement of property and the difficulties that harass the man of moderate means in making provision for the future; they are uneasy over the breaking up of the old laws of decorum, if not of decency, and over the unrestrained pursuit of excitement at any cost; they feel vaguely that in the decay of religion the bases of society have been somehow weakened. Now,

[1] Reprinted through the generous permission of Paul Elmer More and the editor of *The Unpopular Review*, copyright, 1914, by Henry Holt and Company. This essay was first printed in *The Unpopular Review* for July, 1914, and is to be included in the Ninth Series of the author's *Shelburne Essays.*

much of this sort of talk is as old as history, and has no special significance. We are prone to forget that civilization has always been a *tour de force*, so to speak, a little hard-won area of order and self-subordination amidst a vast wilderness of anarchy and barbarism that are continually threatening to overrun their bounds. But that is equally no reason for over-confidence. Civilization is like a ship traversing an untamed sea. It is a more complex machine in our day, with command of greater forces, and might seem correspondingly safer than in the era of sails. But fresh catastrophes have shown that the ancient perils of navigation still confront the largest vessel, when the crew loses its discipline or the officers neglect their duty; and the analogy is not without its warning.

Only a year after the sinking of the *Titanic* I was crossing the ocean, and it befell by chance that on the anniversary of that disaster we passed not very far from the spot where the proud ship lay buried beneath the waves. The evening was calm, and on the lea deck a dance had been hastily organized to take advantage of the benign weather. Almost alone I stood for hours at the railing on the windward side, looking out over the rippling water where the moon had laid upon it a broad street of gold. Nothing could have been more peaceful; it was as if Nature were smiling upon

earth in sympathy with the strains of music and the sound of laughter that reached me at intervals from the revelling on the other deck. Yet I could not put out of my heart an apprehension of some luring treachery in this scene of beauty—and certainly the world can offer nothing more wonderfully beautiful than the moon shining from the far East over a smooth expanse of water. Was it not in such a calm as this that the unsuspecting vessel, with its gay freight of human lives, had shuddered, and gone down, forever? I seemed to behold a symbol; and there came into my mind the words we used to repeat at school, but are, I do not know just why, a little ashamed of to-day:

> Thou, too, sail on, O Ship of State!
> Sail on, O Union, strong and great!
> Humanity with all its fears,
> With all its hopes of future years,
> Is hanging breathless on thy fate! . . .

Something like this, perhaps, is the feeling of many men—men by no means given to morbid gusts of panic—amid a society that laughs overmuch in its amusement and exults in the very lust of change. Nor is their anxiety quite the same as that which has always disturbed the reflecting spectator. At other times the apprehension has been lest the combined forces of order might not be strong enough to withstand the ever-threatening inroads of those who envy barbarously and desire

recklessly; whereas to-day the doubt is whether the natural champions of order themselves shall be found loyal to their trust, for they seem no longer to remember clearly the word of command that should unite them in leadership. Until they can rediscover some common ground of strength and purpose in the first principles of education and law and property and religion, we are in danger of falling a prey to the disorganizing and vulgarizing domination of ambitions which should be the servants and not the masters of society.

Certainly, in the sphere of education there is a growing belief that some radical reform is needed; and this dissatisfaction is in itself wholesome. Boys come into college with no reading and with minds unused to the very practice of study; and they leave college, too often, in the same state of nature. There are even those, inside and outside of academic halls, who protest that our higher institutions of learning simply fail to educate at all. That is slander; but in sober earnest, you will find few experienced college professors, apart from those engaged in teaching purely utilitarian or practical subjects, who are not convinced that the general relaxation is greater now than it was twenty years ago. It is of considerable significance that the two student essays which took the prizes offered by the Harvard *Advocate* in 1913 were both on this theme. The first of them posed

the question: "How can the leadership of the intellectual rather than the athletic student be fostered?" and was virtually a sermon on a text of President Lowell's: "No one in close touch with American education has failed to notice the lack among the mass of undergraduates of keen interest in their studies, and the small regard for scholarly attainment."

Now, the *Advocate* prizeman has his specific remedy, and President Lowell has his, and other men propose other systems and restrictions; but the evil is too deep-seated to be reached by any superficial scheme of honors or to be charmed away by insinuating appeals. The other day Mr. William F. McCombs, chairman of the National Committee which engineered a college president into the White House, gave this advice to our academic youth: "The college man must forget —or never let it creep into his head—that he's a highbrow. If it does creep in, he's out of politics." To which one might reply in Mr. McCombs's own dialect, that unless a man can make himself a force in politics (or at least in the larger life of the State) precisely by virtue of being a "highbrow," he had better spend his four golden years otherwhere than in college. There it is: the destiny of education is intimately bound up with the question of social leadership, and unless the college, as it used to be in the days when the religious

hierarchy it created was a real power, can be made once more a breeding-place for a natural aristocracy, it will inevitably degenerate into a school for mechanical apprentices or into a pleasure resort for the *jeunesse dorée* (*sc.* the "gold coasters"). We must get back to a common understanding of the office of education in the construction of society and must discriminate among the subjects that may enter into the curriculum by their relative value towards this end.

A manifest condition is that education should embrace the means of discipline, for without discipline the mind will remain inefficient just as surely as the muscles of the body, without exercise, will be left flaccid. That should seem to be a self-evident truth. Now it may be possible to derive a certain amount of discipline out of any study, but it is a fact, nevertheless, which cannot be gainsaid, that some studies lend themselves to this use more readily and effectively than others. You may, for instance, if by extraordinary luck you get the perfect teacher, make English literature disciplinary by the hard manipulation of ideas; but in practice it almost inevitably happens that a course in English literature either degenerates into the dull memorizing of dates and names or, rising into the O Altitudo, evaporates in romantic gush over beautiful passages. This does not mean, of course, that no benefit may be obtained

from such a study, but it does preclude English literature generally from being made the backbone, so to speak, of a sound curriculum. The same may be said of French and German. The difficulties of these tongues in themselves and the effort required of us to enter into their spirit imply some degree of intellectual gymnastics, but scarcely enough for our purpose. Of the sciences it behooves one to speak circumspectly, and undoubtedly mathematics and physics, at least, demand such close attention and such firm reasoning as to render them properly a part of any disciplinary education. But there are good grounds for being sceptical of the effect of the non-mathematical sciences on the immature mind. Any one who has spent a considerable portion of his undergraduate time in a chemical laboratory, for example, as the present writer has done, and has the means of comparing the results of such elementary and pottering experimentation with the mental grip required in the humanistic courses, must feel that the real training obtained therein was almost negligible. If I may draw further from my own observation, I must say frankly that, after dealing for a number of years with manuscripts prepared for publication by college professors of the various faculties, I have been forced to the conclusion that science, in itself, is likely to leave the mind in a state of relative imbecility.

It is not that the writing of men who got their early drill too exclusively, or even predominantly, in the sciences lacks the graces of rhetoric—that would be comparatively a small matter—but such men in the majority of cases, even when treating subjects within their own field, show a singular inability to think clearly and consecutively, so soon as they are freed from the restraint of merely describing the process of an experiment. On the contrary, the manuscript of a classical scholar, despite the present dry-rot of philology, almost invariably gives signs of a habit of orderly and well-governed cerebration.

Here, whatever else may be lacking, is discipline. The sheer difficulty of Latin and Greek, the highly organized structure of these languages, the need of scrupulous search to find the nearest equivalents for words that differ widely in their scope of meaning from their derivatives in any modern vocabulary, the effort of lifting one's self out of the familiar rut of ideas into so foreign a world, all these things act as a tonic exercise to the brain. And it is a demonstrable fact that students of the classics do actually surpass their unclassical rivals in any field where a fair test can be made. At Princeton, for instance, Professor West has shown this superiority by tables of achievements and grades, which he has published in the *Educational Review* for March, 1913; and a number of letters

from various parts of the country, printed in the *Nation*, tell the same story in striking fashion. Thus, a letter from Wesleyan (September 7, 1911) gives statistics to prove that the classical students in that university outstrip the others in obtaining all sorts of honors, commonly even honors in the sciences. Another letter (May 8, 1913) shows that in the first semester in English at the University of Nebraska the percentage of delinquents among those who entered with four years of Latin was below 7; among those who had three years of Latin and one or two of a modern language the percentage rose to 15; two years of Latin and two years of a modern language, 30 per cent.; one year or less of Latin and from two to four years of a modern language, 35 per cent. And in the *Nation* of April 23, 1914, Professor Arthur Gordon Webster, the eminent physicist of Clark University, after speaking of the late B. O. Peirce's early drill and life-long interest in Greek and Latin, adds these significant words: "Many of us still believe that such a training makes the best possible foundation for a scientist." There is reason to think that this opinion is daily gaining ground among those who are zealous that the prestige of science should be maintained by men of the best calibre.

The disagreement in this matter would no doubt be less, were it not for an ambiguity in the mean-

ing of the word "efficient" itself. There is a kind of efficiency in managing men, and there also is an intellectual efficiency, properly speaking, which is quite a different faculty. The former is more likely to be found in the successful engineer or business man than in the scholar of secluded habits, and because often such men of affairs received no discipline at college in the classics the argument runs that utilitarian studies are as disciplinary as the humanistic. But efficiency of this kind is not an academic product at all, and is commonly developed, and should be developed, in the school of the world. It comes from dealing with men in matters of large physical moment, and may exist with a mind utterly undisciplined in the stricter sense of the word. We have had more than one illustrious example in recent years of men capable of dominating their fellows, let us say in financial transactions, who yet, in the grasp of first principles and in the analysis of consequences, have shown themselves to be as inefficient as children.

Probably, however, few men who have had experience in education will deny the value of discipline to the classics, even though they hold that other studies, less costly from the utilitarian point of view, are equally educative in this respect. But it is further of prime importance, even if such an equality, or approach to equality, were granted,

that we should select one group of studies and unite in making it the core of the curriculum for the great mass of undergraduates. It is true in education as in other matters that strength comes from union and weakness from division, and if educated men are to work together for a common end they must have a common range of ideas, with a certain solidarity in their way of looking at things. As matters actually are, the educated man feels terribly his isolation under the scattering of intellectual pursuits, yet too often lacks the courage to deny the strange popular fallacy that there is virtue in sheer variety and that somehow well-being is to be struck out from the clashing of miscellaneous interests rather than from concentration. In one of his annual reports some years ago President Eliot, of Harvard, observed from the figures of registration that the majority of students still at that time believed the best form of education for them was in the old humanistic courses, and *therefore,* he argued, the other courses should be fostered. There was never perhaps a more extraordinary syllogism since the *argal* of Shakespeare's grave-digger.[1] I quote from memory, and may slightly misrepresent the actual statement of the influential "educationalist," but the spirit of his words, as indeed of his practice, is surely as I give it. And the working

[1] *Hamlet,* Act V, Sc. i.

of this spirit is one of the main causes of the curious fact that scarcely any other class of men in social intercourse feel themselves, in their deeper concerns, more severed one from another than those very college professors who ought to be united in the battle for educational leadership. This estrangement is sometimes carried to an extreme almost ludicrous. I remember once in a small but advanced college the consternation that was awakened when an instructor in philosophy went to a colleague—both of them now associates in a large university—for information in a question of biology. "What business has he with such matters," said the irate biologist; "let him stick to his last, and teach philosophy—if he can!" That was a polite jest, you will say. Perhaps; but not entirely. Philosophy is indeed taught in one lecture hall, and biology in another, but of conscious effort to make of education an harmonious driving force there is next to nothing. And as the teachers, so are the taught.

Such criticism does not imply that advanced work in any of the branches of human knowledge should be curtailed; but it does demand that, as a background to the professional pursuits, there should be a common intellectual training through which all students should pass, acquiring thus a single body of ideas and images in which they could always meet as brother initiates.

We shall, then, make a long step forward when we determine that in the college, as distinguished from the university, it is better to have the great mass of men, whatever may be the waste in a few unmalleable minds, go through the discipline of a single group of studies—with, of course, a considerable freedom of choice in the outlying field. And it will probably appear in experience that the only practicable group to select is the classics, with the accompaniment of philosophy and the mathematical sciences. Latin and Greek are, at least, as disciplinary as any other subjects; and if it can be further shown that they possess a specific power of correction for the more disintegrating tendencies of the age, it ought to be clear that their value as instruments of education outweighs the service of certain other studies which may seem to be more immediately serviceable.

For it will be pretty generally agreed that efficiency of the individual scholar and unity of the scholarly class are, properly, only the means to obtain the real end of education, which is social efficiency. The only way, in fact, to make the discipline demanded by a severe curriculum and the sacrifice of particular tastes required for unity seem worth the cost is to persuade men that the resulting form of education both meets a present and serious need of society and promises to serve those individuals who desire to obtain society's

fairer honors. Mr. McCombs, speaking for the "practical" man, declares that there is no place in politics for the intellectual aristocrat. A good many of us believe that unless the very reverse of this is true, unless the educated man can somehow, by virtue of his education, make of himself a governor of the people in the larger sense, and even to some extent in the narrow political sense, unless the college can produce a hierarchy of character and intelligence which shall in due measure perform the office of the discredited oligarchy of birth, we had better make haste to divert our enormous collegiate endowments into more useful channels.

And here I am glad to find confirmation of my belief in the stalwart old *Boke Named the Governour*, published by Sir Thomas Elyot in 1531, the first treatise on education in the English tongue and still, after all these years, one of the wisest. It is no waste of time to take account of the theory held by the humanists when study at Oxford and Cambridge was shaping itself for its long service in giving to the oligarchic government of Great Britain whatever elements it possessed of true aristocracy. Elyot's book is equally a treatise on the education of a gentleman and on the ordinance of government, for, as he says elsewhere, he wrote "to instruct men in such virtues as shall be expedient for them which shall have

authority in a weal public." I quote from various parts of his work with some abridgment, retaining the quaint spelling of the original, and I beg the reader not to skip, however long the citation may appear:

Beholde also the ordre that god hath put generally in al his creatures, begynning at the moste inferiour or base, and assendynge upwarde; so that in euery thyng is ordre, and without ordre may be nothing stable or permanent; and it may nat be called ordre, excepte it do contayne in it degrees, high and base, accordynge to the merite or estimation of the thyng that is ordred. And therfore hit appereth that god gyueth nat to euery man like gyftes of grace, or of nature, but to some more, some lesse, as it liketh his diuine maiestie. For as moche as understandyng is the most excellent gyfte that man can receiue in his creation, it is therfore congruent, and accordynge that as one excelleth an other in that influence, as therby beinge next to the similitude of his maker, so shulde the astate of his persone be auanced in degree or place where understandynge may profite. Suche oughte to be set in a more highe place than the residue where they may se and also be sene; that by the beames of theyr excellent witte, shewed throughe the glasse of auctorite, other of inferiour understandynge may be directed to the way of vertue and commodious liuynge. . . .

Thus I conclude that nobilitie is nat after the vulgare opinion of men, but is only the prayse and sur-

name of vertue; whiche the lenger it continueth in a name or lignage, the more is nobilitie extolled and meruailed at. . . .

If thou be a gouernour, or haste ouer other souer-aygntie, knowe thy selfe. Knowe that the name of a soueraigne or ruler without actuall gouernaunce is but a shadowe, that gouernaunce standeth nat by wordes onely, but principally by acte and example; that by example of gouernours men do rise or falle in vertue or vice. Ye shall knowe all way your selfe, if for affection or motion ye do speke or do nothing unworthy the immortalitie and moste precious nature of your soule. . . .

In semblable maner the inferior persone or subiecte aught to consider, that all be it he in the substaunce of soule and body be equall with his superior, yet for als moche as the powars and qualities of the soule and body, with the disposition of reason, be nat in euery man equall, therfore god ordayned a diuersitie or pre-eminence in degrees to be amonge men for the necessary derection and preseruation of them in conformitie of lyuinge. . . .

Where all thynge is commune, there lacketh ordre; and where ordre lacketh, there all thynge is odiouse and uncomly.

Such is the goal which the grave Sir Thomas pointed out to the noble youth of his land at the beginning of England's greatness, and such, within the bounds of human frailty, has been the ideal even until now which the two universities have

held before them. Naturally the method of training prescribed in the sixteenth century for the attainment of this goal is antiquated in some of its details, but it is no exaggeration, nevertheless, to speak of the *Boke Named the Governour* as the very Magna Charta of our education. The scheme of the humanist might be described in a word as a disciplining of the higher faculty of the imagination to the end that the student may behold, as it were in one sublime vision, the whole scale of being in its range from the lowest to the highest under the divine decree of order and subordination, without losing sight of the immutable veracity at the heart of all development, which "is only the praise and surname of virtue." This was no new vision, nor has it ever been quite forgotten. It was the whole meaning of religion to Hooker, from whom it passed into all that is best and least ephemeral in the Anglican Church. It was the basis, more modestly expressed, of Blackstone's conception of the British Constitution and of liberty under law. It was the kernel of Burke's theory of statecraft. It is the inspiration of the sublimer science, which accepts the hypothesis of evolution as taught by Darwin and Spencer, yet bows in reverence before the unnamed and incommensurable force lodged as a mystical purpose within the unfolding universe. It was the wisdom of that child of Stratford who, building better

than he knew, gave to our literature its deepest and most persistent note. If anywhere Shakespeare seems to speak from his heart and to utter his own philosophy, it is in the person of Ulysses in that strange satire of life as "still wars and lechery" which forms the theme of *Troilus and Cressida*. Twice in the course of the play Ulysses moralizes on the causes of human evil. Once it is in an outburst against the devastations of disorder:

> Take but degree away, untune that string,
> And, hark, what discord follows! each thing meets
> In mere oppugnancy: the bounded waters
> Should lift their bosoms higher than the shores,
> And make a sop of all this solid globe:
> Strength should be lord of imbecility,
> And the rude son should strike his father dead:
> Force should be right; or rather, right and wrong,
> Between whose endless jar justice resides,
> Should lose their names, and so should justice too.
> Then every thing includes itself in power,
> Power into will, will into appetite.

And, in the same spirit, the second tirade of Ulysses is charged with mockery at the vanity of the present and at man's usurpation of time as the destroyer instead of the preserver of continuity:

> For time is like a fashionable host
> That slightly shakes his parting guest by the hand,
> And with his arms outstretch'd, as he would fly,
> Grasps in the comer: welcome ever smiles,

> And farewell goes out sighing. O, let not virtue seek
> Remuneration for the thing it was;
> For beauty, wit,
> High birth, vigor of bone, desert in service,
> Love, friendship, charity, are subjects all
> To envious and calumniating time.

To have made this vision of the higher imagination a true part of our self-knowledge, in such fashion that the soul is purged of envy for what is distinguished and we feel ourselves fellows with the preserving, rather than the destroying, forces of time, is to be raised into the nobility of the intellect. To hold this knowledge in a mind trained to fine efficiency and confirmed by faithful comradeship is to take one's place with the rightful governors of the people. Nor is there any narrow or invidious exclusiveness in such an aristocracy, which differs in this free hospitality from an oligarchy of artificial prescription. The more its membership is enlarged, the greater is its power and the more secure are the privileges of each individual. Yet, if not exclusive, an academic aristocracy must by its very nature be exceedingly jealous of any levelling process which would shape education to the needs of the intellectual proletariat and so diminish its own ranks. It cannot admit that, if education is once levelled downwards, the whole body of men will of themselves gradually raise the level to the higher range; for

its creed declares that elevation must come from leadership rather than from self-motion of the mass. It will therefore be opposed to any scheme of studies which relaxes discipline or destroys intellectual solidarity. It will look with suspicion on any system which turns out half-educated men with the same diplomas as the fully educated, thinking that such methods of slurring differences are likely to do more harm by discouraging the ambition to attain what is distinguished than good by spreading wide a thin veneer of culture. In particular it will distrust the present huge overgrowth of courses in government and sociology, which send men into the world skilled in the machinery of statecraft and with minds sharpened to the immediate demands of special groups, but with no genuine training of the imagination and no understanding of the longer problems of humanity, with no hold on the past, " amidst so vast a fluctuation of passions and opinions, to concentre their thoughts, to ballast their conduct, to preserve them from being blown about by every wind of fashionable doctrine." It will set itself against any regular subjection of the " fierce spirit of liberty," which is the breath of distinction and the very charter of aristocracy, to the sullen spirit of equality, which proceeds from envy in the baser sort of democracy. It will regard the character of education and the disposition of the

curriculum as a question of supreme importance; for its motto is always, *abeunt studia in mores.*[1]

Now this aristocratic principle has, so to speak, its everlasting embodiment in Greek literature, from whence it was taken over into Latin and transmitted, with much mingling of foreign and even contradictory ideas, to the modern world. From Homer to the last runnings of the Hellenic spirit you will find it taught by every kind of precept and enforced by every kind of example; nor was Shakespeare writing at hazard, but under the instinctive guidance of genius, when he put his aristocratic creed into the mouth of the hero who to the end remained for the Greeks the personification of their peculiar wisdom. In no other poetry of the world is the law of distinction, as springing from a man's perception of his place in the great hierarchy of privilege and obligation from the lowest human being up to the Olympian gods, so copiously and magnificently set forth as in Pindar's Odes of Victory. And Aeschylus was the first dramatist to see with clear vision the primacy of the intellect in the law of orderly development, seemingly at variance with the divine immutable will of Fate, yet finally in mysterious accord with it. When the philosophers of the later period came to the creation of systematic ethics they had only the task of formulating what was already

[1] Studies pass into habits.

latent in the poets and historians of their land; and it was the recollection of the fulness of such instruction in the *Nicomachean Ethics* [1] and the Platonic Dialogues, with their echo in the *Officia* of Cicero, as if in them were stored up all the treasures of antiquity, that raised our Sir Thomas into wondering admiration:

> Lorde god, what incomparable swetnesse of wordes and mater shall he finde in the saide warkes of Plato and Cicero; wherin is ioyned grauitie with dilectation, excellent wysedome with diuine eloquence, absolute vertue with pleasure incredible, and euery place is so farced [crowded] with profitable counsaile, ioyned with honestie, that those thre bokes be almoste sufficient to make a perfecte and excellent gouernour.

There is no need to dwell on this aspect of the classics. He who cares to follow their full working in this direction, as did our English humanist, may find it exhibited in Plato's political and ethical scheme of self-development or in Aristotle's ideal of the Golden Mean which combines magnanimity with moderation, and elevation with self-knowledge. If a single word were used to describe the character and state of life upheld by Plato and Aristotle, as spokesmen of their people, it would be *eleutheria, liberty:* the freedom to cultivate the higher part of a man's nature—his intellectual prerogative, his desire of truth, his refinements of

[1] A treatise written by Aristotle.

taste—and to hold the baser part of himself in subjection; the freedom also, for its own perfection, and indeed for its very existence, to impose an outer conformity to, or at least respect for, the laws of this inner government on others who are of themselves ungoverned. Such liberty is the ground of true distinction; it implies the opposite of an equalitarianism which reserves its honors and rewards for those who attain a bastard kind of distinction by the cunning of leadership without departing from common standards, for the demagogues, that is, who rise by flattery. But it is, on the other hand, by no means dependent on the artificial distinctions of privilege, and is peculiarly adapted to an age whose appointed task must be to create a natural aristocracy as a *via media* between an equalitarian democracy and a prescriptive oligarchy or plutocracy. It is a notable fact that, as the real hostility to the classics in the present day arises from an instinctive suspicion of them as standing in the way of a downward-levelling mediocrity, so, at other times, they have fallen under displeasure for their veto on a contrary excess. Thus, in his savage attack on the Commonwealth, to which he gave the significant title *Behemoth*, Hobbes lists the reading of classical history among the chief causes of the rebellion. "There were," he says, "an exceeding great number of men of the better sort, that had been so educated as that in

their youth, having read the books written by famous men of the ancient Grecian and Roman commonwealths concerning their polity and great actions, in which books the popular government was extolled by that glorious name of liberty, and monarchy disgraced by the name of tyranny, they became thereby in love with their forms of government; and out of these men were chosen the greatest part of the House of Commons; or if they were not the greatest part, yet by advantage of their eloquence were always able to sway the rest." To this charge Hobbes returns again and again, even declaring that "the universities have been to this nation as the Wooden Horse was to the Trojans." And the uncompromising monarchist of the *Leviathan*,[1] himself a classicist of no mean attainments, as may be known by his translation of Thucydides, was not deceived in his accusation. The tyrannicides of Athens and Rome, the Aristogeitons [2] and Brutuses and others, were the heroes by whose example the leaders of the French Revolution (rightly, so far as they did not fall into the opposite, equalitarian excess) were continually justifying their acts:

> There Brutus starts and stares by midnight taper,
> Who all the day enacts—a woollen-draper.

[1] A work written by Hobbes.

[2] Two Athenian youths, Aristogeiton and Harmodius, killed the tyrant Hipparchus in 514 B.C.

And again, in the years of the Risorgimento,[1] more than one of the champions of Italian liberty went to death with those great names on their lips.

So runs the law of order and right subordination. But if the classics offer the best service to education by inculcating an aristocracy of intellectual distinction, they are equally effective in enforcing the similar lesson of time. It is a true saying of our ancient humanist that "the longer it continueth in a name or lineage, the more is nobility extolled and marvelled at." It is true because in this way our imagination is working with the great conservative law of growth. Whatever may be in theory our democratic distaste for the insignia of birth, we cannot get away from the fact that there is a certain honor of inheritance and that we instinctively pay homage to one who represents a noble name. There is nothing really illogical in this, for, as an English statesman has put it, "the past is one of the elements of our power." He is the wise democrat who, with no opposition to such a decree of Nature, endeavors to control its operation by expecting noble service where the memory of nobility abides. When last year Oxford bestowed its highest honor on an American,[2] distinguished not only for his own pub-

[1] A term applied to the events that culminated in the liberation and unification of Italy in 1870.

[2] Charles Francis Adams.

lic acts but for the great tradition embodied in his name, the Orator of the University did not omit this legitimate appeal to the imagination, singularly appropriate in its academic Latin:

. . . Statim succurrit animo antiqua illa Romae condicio, cum non tam propter singulos cives quam propter singulas gentes nomen Romanum floreret. Cum enim civis alicujus et avum et proavum principes civitatis esse creatos, cum patrem legationis munus apud aulam Britannicam summa cum laude esse exsecutum cognovimus; cum denique ipsum per totum bellum stipendia equo meritum, summa pericula "Pulcra pro Libertate" ausum, . . . Romanae alicujus gentis—Brutorum vel Deciorum—annales evolvere videmur, qui testimonium adhibent "fortes creari fortibus," et majorum exemplis et imaginibus nepotes ad virtutem accendi.[1]

[1] One's mind reverts inevitably to that ancient state of affairs in Rome, when the Roman name was illustrious not only through individual citizens, but also through particular families. For when we consider that a man's grandfather and great-grandfather held the highest office in a state, and that his father represented his country with the highest distinction at the court of Great Britain, and when we remember, finally, that the man himself gave all his strength to military service throughout a war, incurring extreme perils "For the sake of Sweet Liberty," . . . in these recollections we seem to be unrolling the annals of some Roman family—of the Bruti or the Decii—annals bearing witness to the fact that "the strong are born to the strong," and that by the examples and traditions of their ancestors, the descendants are incited to distinguished achievement.

Is there any man so dull of soul as not to be stirred by that enumeration of civic services zealously inherited; or is there any one so envious of the past as not to believe that such memories should be honored in the present as an incentive to noble emulation?

Well, we cannot all of us count Presidents and Ambassadors among our ancestors,[1] but we can, if we will, in the genealogy of the inner life enroll ourselves among the adopted sons of a family in comparison with which the Bruti and Decii of old and the Adamses of to-day are veritable *new men.* We can see what defence against the meaner depredations of the world may be drawn from the pride of birth, when, as it sometimes happens, the obligation of a great past is kept as a contract with the present; shall we forget to measure the enlargement and elevation of mind which ought to come to a man who has made himself the heir of the ancient Lords of Wisdom? "To one small people," as Sir Henry Maine[2] has said, in words often quoted, "it was given to create the prin-

[1] The great-grandfather of Charles Francis Adams was John Adams (1735-1826), second president of the United States; his grandfather was John Quincy Adams (1767-1848), sixth president of the United States; and his father was Charles Francis Adams (1807-1886), Minister to Great Britain from 1861 to 1868.

[2] Sir Henry James Sumner Maine (1822-1888), an eminent jurist and writer.

ciple of Progress. That people was the Greek. Except the blind forces of Nature, nothing moves in this world which is not Greek in its origin." That is a hard saying, but scarcely exaggerated. Examine the records of our art and our science, our philosophy and the enduring element of our faith, our statecraft and our notion of liberty, and you will find that they all go back for their inspiration to that one small people, and strike their roots into the soil of Greece. What we have added, it is well to know; but he is the aristocrat of the mind who can display a diploma from the schools of the Academy [1] and the Lyceum [2] and from the Theatre of Dionysus.[3] What tradition of ancestral achievement in the Senate or on the field of battle shall broaden a man's outlook and elevate his will equally with the consciousness that his way of thinking and feeling has come down to him by so long and honorable a descent, or shall so confirm him in his better judgment against the ephemeral and vulgarizing solicitations of the hour? Other men are creatures of the visible moment; he is a citizen of the past and of the future. And such a charter of citizenship it is the first duty of the college to provide.

[1] A public garden near ancient Athens, where Plato discoursed.

[2] A park in ancient Athens, frequented by Aristotle and his disciples.

[3] The oldest public theatre in Athens.

I have limited myself in these pages to a discussion of what may be called the public side of education, considering the classics in their power to mould character and to foster sound leadership in a society much given to drifting. Of the inexhaustible joy and consolation they afford to the individual, only he can have full knowledge who has made the writers of Greece and Rome his friends and counsellors through many vicissitudes of life. It is related of Sainte-Beuve, who, according to Renan, read everything and remembered everything, that one could observe a peculiar serenity on his face whenever he came down from his study after reading a book of Homer. The cost of learning the language of Homer is not small; but so are all fair things difficult, as the Greek proverb runs, and the reward in this case is precious beyond estimation. Yet we need not, in our zeal, forget another proverb from Greece, with its spirit of "accommodation"—that the half is sometimes greater than the whole. Even a moderate acquaintance with the language, helped out by good translations, will go a surprising length towards keeping a man, amid the exactions of a professional or otherwise busy life, in possession of the heritage to which our age has grown so perilously indifferent.

THE AMERICAN SCHOLAR[1]

RALPH WALDO EMERSON

Mr. President and Gentlemen,

I greet you on the recommencement of our literary year. Our anniversary is one of hope, and, perhaps, not enough of labor. We do not meet for games of strength or skill, for the recitation of histories, tragedies, and odes, like the ancient Greeks; for parliaments of love and poesy, like the Troubadours; nor for the advancement of science, like our contemporaries in the British and European capitals. Thus far, our holiday has been simply a friendly sign of the survival of the love of letters amongst a people too busy to give to letters any more. As such it is precious as the sign of an indestructible instinct. Perhaps the time is already come when it ought to be, and will be, something else; when the sluggard intellect of this continent will look from under its iron lids and fill the postponed expectation of the world with something better than the exertions of mechanical skill. Our day of dependence, our long

[1] An oration delivered before the Phi Beta Kappa Society, at Cambridge, August 31, 1837.

apprenticeship to the learning of other lands, draws to a close. The millions that around us are rushing into life cannot always be fed on the sere remains of foreign harvests. Events, actions arise, that must be sung, that will sing themselves. Who can doubt that poetry will revive and lead in a new age, as the star in the constellation Harp, which now flames in our zenith, astronomers announce, shall one day be the pole-star for a thousand years?

In this hope I accept the topic which not only usage but the nature of our association seem to prescribe to this day,—the American Scholar. Year by year we come up hither to read one more chapter of his biography. Let us inquire what light new days and events have thrown on his character and his hopes.

It is one of those fables which out of an unknown antiquity convey an unlooked-for wisdom, that the gods, in the beginning, divided Man into men, that he might be more helpful to himself; just as the hand was divided into fingers, the better to answer its end.

The old fable covers a doctrine ever new and sublime; that there is One Man,—present to all particular men only partially, or through one faculty; and that you must take the whole society to find the whole man. Man is not a farmer, or a professor, or an engineer, but he is all. Man is

priest, and scholar, and statesman, and producer, and soldier. In the *divided* or social state these functions are parcelled out to individuals, each of whom aims to do his stint of the joint work, whilst each other performs his. The fable implies that the individual, to possess himself, must sometimes return from his own labor to embrace all the other laborers. But, unfortunately, this original unit, this fountain of power, has been so distributed to multitudes, has been so minutely subdivided and peddled out, that it is spilled into drops, and cannot be gathered. The state of society is one in which the members have suffered amputation from the trunk, and strut about so many walking monsters,—a good finger, a neck, a stomach, an elbow, but never a man.

Man is thus metamorphosed into a thing, into many things. The planter, who is Man sent out into the field to gather food, is seldom cheered by any idea of the true dignity of his ministry. He sees his bushel and his cart, and nothing beyond, and sinks into the farmer, instead of Man on the farm. The tradesman scarcely ever gives an ideal worth to his work, but is ridden by the routine of his craft, and the soul is subject to dollars. The priest becomes a form; the attorney a statute-book; the mechanic a machine; the sailor a rope of the ship.

In this distribution of functions the scholar is

the delegated intellect. In the right state he is *Man Thinking*. In the degenerate state, when the victim of society, he tends to become a mere thinker, or still worse, the parrot of other men's thinking.

In this view of him, as Man Thinking, the theory of his office is contained. Him Nature solicits with all her placid, all her monitory pictures; him the past instructs; him the future invites. Is not indeed every man a student, and do not all things exist for the student's behoof? And, finally, is not the true scholar the only true master? But the old oracle said, "All things have two handles: beware of the wrong one." In life, too often, the scholar errs with mankind and forfeits his privilege. Let us see him in his school, and consider him in reference to the main influences he receives.

I. The first in time and the first in importance of the influences upon the mind is that of nature. Every day, the sun; and, after sunset, Night and her stars. Ever the winds blow; ever the grass grows. Every day, men and women, conversing, beholding and beholden. The scholar is he of all men whom this spectacle most engages. He must settle its value in his mind. What is nature to him? There is never a beginning, there is never an end, to the inexplicable continuity of this web of God, but always circular power returning into

itself. Therein it resembles his own spirit, whose beginning, whose ending, he never can find,—so entire, so boundless. Far too as her splendors shine, system on system shooting like rays, upward, downward, without centre, without circumference,—in the mass and in the particle, Nature hastens to render account of herself to the mind. Classification begins. To the young mind every thing is individual, stands by itself. By and by, it finds how to join two things and see in them one nature; then three, then three thousand; and so, tyrannized over by its own unifying instinct, it goes on tying things together, diminishing anomalies, discovering roots running under ground whereby contrary and remote things cohere and flower out from one stem. It presently learns that since the dawn of history there has been a constant accumulation and classifying of facts. But what is classification but the perceiving that these objects are not chaotic, and are not foreign, but have a law which is also a law of the human mind? The astronomer discovers that geometry, a pure abstraction of the human mind, is the measure of planetary motion. The chemist finds proportions and intelligible method throughout matter; and science is nothing but the finding of analogy, identity, in the most remote parts. The ambitious soul sits down before each refractory fact; one after another reduces all strange constitutions, all new

powers, to their class and their law, and goes on forever to animate the last fibre of organization, the outskirts of nature, by insight.

Thus to him, to this schoolboy under the bending dome of day, is suggested that he and it proceed from one root; one is leaf and one is flower; relation, sympathy, stirring in every vein. And what is that root? Is not that the soul of his soul? A thought too bold; a dream too wild. Yet when this spiritual light shall have revealed the law of more earthly natures,—when he has learned to worship the soul, and to see that the natural philosophy that now is, is only the first gropings of its gigantic hand, he shall look forward to an ever expanding knowledge as to a becoming creator. He shall see that nature is the opposite of the soul, answering to it part for part. One is seal and one is print. Its beauty is the beauty of his own mind. Its laws are the laws of his own mind. Nature then becomes to him the measure of his attainments. So much of nature as he is ignorant of, so much of his own mind does he not yet possess. And, in fine, the ancient precept, "Know thyself," and the modern precept, "Study nature," become at last one maxim.

II. The next great influence into the spirit of the scholar is the mind of the Past,—in whatever form, whether of literature, of art, of institutions,

that mind is inscribed. Books are the best type of the influence of the past, and perhaps we shall get at the truth,—learn the amount of this influence more conveniently,—by considering their value alone.

The theory of books is noble. The scholar of the first age received into him the world around; brooded thereon; gave it the new arrangement of his own mind, and uttered it again. It came into him life; it went out from him truth. It came to him short-lived actions; it went out from him immortal thoughts. It came to him business; it went from him poetry. It was dead fact; now, it is quick thought. It can stand, and it can go. It now endures, it now flies, it now inspires. Precisely in proportion to the depth of mind from which it issued, so high does it soar, so long does it sing.

Or, I might say, it depends on how far the process had gone, of transmuting life into truth. In proportion to the completeness of the distillation, so will the purity and imperishableness of the product be. But none is quite perfect. As no air-pump can by any means make a perfect vacuum, so neither can any artist entirely exclude the conventional, the local, the perishable from his book, or write a book of pure thought, that shall be as efficient, in all respects, to a remote posterity, as to contemporaries, or rather to the second age.

Each age, it is found, must write its own books; or rather, each generation for the next succeeding. The books of an older period will not fit this.

Yet hence arises a grave mischief. The sacredness which attaches to the act of creation, the act of thought, is transferred to the record. The poet chanting was felt to be a divine man: henceforth the chant is divine also. The writer was a just and wise spirit: henceforward it is settled the book is perfect; as love of the hero corrupts into worship of his statue. Instantly the book becomes noxious: the guide is a tyrant. The sluggish and perverted mind of the multitude, slow to open to the incursions of Reason, having once so opened, having once received this book, stands upon it, and makes an outcry if it is disparaged. Colleges are built on it. Books are written on it by thinkers, not by Man Thinking; by men of talent, that is, who start wrong, who set out from accepted dogmas, not from their own sight of principles. Meek young men grow up in libraries, believing it their duty to accept the views which Cicero, which Locke, which Bacon, have given; forgetful that Cicero, Locke, and Bacon were only young men in libraries when they wrote these books.

Hence, instead of Man Thinking, we have the bookworm. Hence the book-learned class, who value books, as such; not as related to nature and the human constitution, but as making a sort of

Third Estate with the world and the soul. Hence the restorers of readings, the emendators, the bibliomaniacs of all degrees.

Books are the best of things, well used; abused, among the worst. What is the right use? What is the one end which all means go to effect? They are for nothing but to inspire. I had better never see a book than to be warped by its attraction clean out of my own orbit, and made a satellite instead of a system. The one thing in the world, of value, is the active soul. This every man is entitled to; this every man contains within him, although in almost all men obstructed, and as yet unborn. The soul active sees absolute truth and utters truth, or creates. In this action it is genius; not the privilege of here and there a favorite, but the sound estate of every man. In its essence it is progressive. The book, the college, the school of art, the institution of any kind, stop with some past utterance of genius. This is good, say they,—let us hold by this. They pin me down. They look backward and not forward. But genius looks forward: the eyes of man are set in his forehead, not in his hindhead: man hopes: genius creates. Whatever talents may be, if the man create not, the pure efflux of the Deity is not his; —cinders and smoke there may be, but not yet flame. There are creative manners, there are creative actions, and creative words; manners, actions,

words, that is, indicative of no custom or authority, but springing spontaneous from the mind's own sense of good and fair.

On the other part, instead of being its own seer, let it receive from another mind its truth, though it were in torrents of light, without periods of solitude, inquest, and self-recovery, and a fatal disservice is done. Genius is always sufficiently the enemy of genius by over-influence. The literature of every nation bears me witness. The English dramatic poets have Shakspearized now for two hundred years.

Undoubtedly there is a right way of reading, so it be sternly subordinated. Man Thinking must not be subdued by his instruments. Books are for the scholar's idle times. When he can read God directly, the hour is too precious to be wasted in other men's transcripts of their readings. But when the intervals of darkness come, as come they must,—when the sun is hid and the stars withdraw their shining,—we repair to the lamps which were kindled by their ray, to guide our steps to the East again, where the dawn is. We hear, that we may speak. The Arabian proverb says, "A fig tree, looking on a fig tree, becometh fruitful."

It is remarkable, the character of the pleasure we derive from the best books. They impress us with the conviction that one nature wrote and the same reads. We read the verses of one of the

great English poets, of Chaucer, of Marvell, of Dryden, with the most modern joy,—with a pleasure, I mean, which is in great part caused by the abstraction of all *time* from their verses. There is some awe mixed with the joy of our surprise, when this poet, who lived in some past world, two or three hundred years ago, says that which lies close to my own soul, that which I also had well-nigh thought and said. But for the evidence thence afforded to the philosophical doctrine of the identity of all minds, we should suppose some preëstablished harmony, some foresight of souls that were to be, and some preparation of stores for their future wants, like the fact observed in insects, who lay up food before death for the young grub they shall never see.

I would not be hurried by any love of system, by any exaggeration of instincts, to underrate the Book. We all know, that as the human body can be nourished on any food, though it were boiled grass and the broth of shoes, so the human mind can be fed by any knowledge. And great and heroic men have existed who had almost no other information than by the printed page. I only would say that it needs a strong head to bear that diet. One must be an inventor to read well. As the proverb says, "He that would bring home the wealth of the Indies, must carry out the wealth of the Indies." There is then creative reading as well

as creative writing. When the mind is braced by labor and invention, the page of whatever book we read becomes luminous with manifold allusion. Every sentence is doubly significant, and the sense of our author is as broad as the world. We then see, what is always true, that as the seer's hour of vision is short and rare among heavy days and months, so is its record, perchance, the least part of his volume. The discerning will read, in his Plato or Shakspeare, only that least part,—only the authentic utterances of the oracle;—all the rest he rejects, were it never so many times Plato's and Shakspeare's.

Of course there is a portion of reading quite indispensable to a wise man. History and exact science he must learn by laborious reading. Colleges, in like manner, have their indispensable office,—to teach elements. But they can only highly serve us when they aim not to drill, but to create; when they gather from far every ray of various genius to their hospitable halls, and by the concentrated fires, set the hearts of their youth on flame. Thought and knowledge are natures in which apparatus and pretension avail nothing. Gowns and pecuniary foundations, though of towns of gold, can never countervail the least sentence or syllable of wit. Forget this, and our American colleges will recede in their public importance, whilst they grow richer every year.

III. There goes in the world a notion that the scholar should be a recluse, a valetudinarian,—as unfit for any handiwork or public labor as a penknife for an axe. The so-called "practical men" sneer at speculative men, as if, because they speculate or *see*, they could do nothing. I have heard it said that the clergy,—who are always, more universally than any other class, the scholars of their day,—are addressed as women; that the rough, spontaneous conversation of men they do not hear, but only a mincing and diluted speech. They are often virtually disfranchised; and indeed there are advocates for their celibacy. As far as this is true of the studious classes, it is not just and wise. Action is with the scholar subordinate, but it is essential. Without it he is not yet man. Without it thought can never ripen into truth. Whilst the world hangs before the eye as a cloud of beauty, we cannot even see its beauty. Inaction is cowardice, but there can be no scholar without the heroic mind. The preamble of thought, the transition through which it passes from the unconscious to the conscious, is action. Only so much do I know, as I have lived. Instantly we know whose words are loaded with life, and whose not.

The world,—this shadow of the soul, or *other me*, lies wide around. Its attractions are the keys which unlock my thoughts and make me acquainted

with myself. I run eagerly into this resounding tumult. I grasp the hands of those next me, and take my place in the ring to suffer and to work, taught by an instinct that so shall the dumb abyss be vocal with speech. I pierce its order; I dissipate its fear; I dispose of it within the circuit of my expanding life. So much only of life as I know by experience, so much of the wilderness have I vanquished and planted, or so far have I extended my being, my dominion. I do not see how any man can afford, for the sake of his nerves and his nap, to spare any action in which he can partake. It is pearls and rubies to his discourse. Drudgery, calamity, exasperation, want, are instructors in eloquence and wisdom. The true scholar grudges every opportunity of action past by, as a loss of power.

It is the raw material out of which the intellect moulds her splendid products. A strange process too, this by which experience is converted into thought, as a mulberry leaf is converted into satin. The manufacture goes forward at all hours.

The actions and events of our childhood and youth are now matters of calmest observation. They lie like fair pictures in the air. Not so with our recent actions,—with the business which we now have in hand. On this we are quite unable to speculate. Our affections as yet circulate through it. We no more feel or know it than we feel the

feet, or the hand, or the brain of our body. The new deed is yet a part of life,—remains for a time immersed in our unconscious life. In some contemplative hour it detaches itself from the life like a ripe fruit, to become a thought of the mind. Instantly it is raised, transfigured; the corruptible has put on incorruption. Henceforth it is an object of beauty, however base its origin and neighborhood. Observe too the impossibility of antedating this act. In its grub state, it cannot fly, it cannot shine, it is a dull grub. But suddenly, without observation, the selfsame thing unfurls beautiful wings, and is an angel of wisdom. So is there no fact, no event, in our private history, which shall not, sooner or later, lose its adhesive, inert form, and astonish us by soaring from our body into the empyrean. Cradle and infancy, school and playground, the fear of boys, and dogs, and ferules, the love of little maids and berries, and many another fact that once filled the whole sky, are gone already; friend and relative, profession and party, town and country, nation and world, must also soar and sing.

Of course, he who has put forth his total strength in fit actions has the richest return of wisdom. I will not shut myself out of this globe of action, and transplant an oak into a flower-pot, there to hunger and pine; nor trust the revenue of some single faculty, and exhaust one vein of

thought, much like those Savoyards, who, getting their livelihood by carving shepherds, shepherdesses, and smoking Dutchmen, for all Europe, went out one day to the mountain to find stock, and discovered that they had whittled up the last of their pine-trees. Authors we have, in numbers, who have written out their vein, and who, moved by a commendable prudence, sail for Greece or Palestine, follow the trapper into the prairie, or ramble round Algiers, to replenish their merchantable stock.

If it were only for a vocabulary, the scholar would be covetous of action. Life is our dictionary. Years are well spent in country labors; in town; in the insight into trades and manufactures; in frank intercourse with many men and women; in science; in art; to the one end of mastering in all their facts a language by which to illustrate and embody our perceptions. I learn immediately from any speaker how much he has already lived, through the poverty or the splendor of his speech. Life lies behind us as the quarry from whence we get tiles and copestones for the masonry of to-day. This is the way to learn grammar. Colleges and books only copy the language which the field and the work-yard made.

But the final value of action, like that of books, and better than books, is that it is a resource. That great principle of Undulation in nature, that

shows itself in the inspiring and expiring of the breath; in desire and satiety; in the ebb and flow of the sea; in day and night; in heat and cold; and, as yet more deeply ingrained in every atom and every fluid, is known to us under the name of Polarity,—these "fits of easy transmission and reflection," as Newton called them,—are the law of nature because they are the law of spirit.

The mind now thinks, now acts, and each fit reproduces the other. When the artist has exhausted his materials, when the fancy no longer paints, when thoughts are no longer apprehended and books are a weariness,—he has always the resource *to live*. Character is higher than intellect. Thinking is the function. Living is the functionary. The stream retreats to its source. A great soul will be strong to live, as well as strong to think. Does he lack organ or medium to impart his truths? He can still fall back on this elemental force of living them. This is a total act. Thinking is a partial act. Let the grandeur of justice shine in his affairs. Let the beauty of affection cheer his lowly roof. Those "far from fame," who dwell and act with him, will feel the force of his constitution in the doings and passages of the day better than it can be measured by any public and designed display. Time shall teach him that the scholar loses no hour which the man lives. Herein he unfolds the sacred germ of his

instinct, screened from influence. What is lost in seemliness is gained in strength. Not out of those on whom systems of education have exhausted their culture comes the helpful giant to destroy the old or to build the new, but out of unhandselled savage nature; out of terrible Druids and Berserkers come at last Alfred and Shakspeare.

I hear therefore with joy whatever is beginning to be said of the dignity and necessity of labor to every citizen. There is virtue yet in the hoe and the spade, for learned as well as for unlearned hands. And labor is everywhere welcome; always we are invited to work; only be this limitation observed, that a man shall not for the sake of wider activity sacrifice any opinion to the popular judgments and modes of action.

I have now spoken of the education of the scholar by nature, by books, and by action. It remains to say somewhat of his duties.

They are such as become Man Thinking. They may all be comprised in self-trust. The office of the scholar is to cheer, to raise, and to guide men by showing them facts amidst appearances. He plies the slow, unhonored, and unpaid task of observation. Flamsteed[1] and Herschel, in their glazed observatories, may catalogue the stars with the praise of all men, and the results being splen-

[1] John Flamsteed (1646-1719), an English astronomer.

did and useful, honor is sure. But he, in his private observatory, cataloguing obscure and nebulous stars of the human mind, which as yet no man has thought of as such,—watching days and months sometimes for a few facts; correcting still his old records;—must relinquish display and immediate fame. In the long period of his preparation he must betray often an ignorance and shiftlessness in popular arts, incurring the disdain of the able who shoulder him aside. Long he must stammer in his speech; often forego the living for the dead. Worse yet, he must accept,—how often! poverty and solitude. For the ease and pleasure of treading the old road, accepting the fashions, the education, the religion of society, he takes the cross of making his own, and, of course, the self-accusation, the faint heart, the frequent uncertainty and loss of time, which are the nettles and tangling vines in the way of the self-relying and self-directed; and the state of virtual hostility in which he seems to stand to society, and especially to educated society. For all this loss and scorn, what offset? He is to find consolation in exercising the highest functions of human nature. He is one who raises himself from private considerations and breathes and lives on public and illustrious thoughts. He is the world's eye. He is the world's heart. He is to resist the vulgar prosperity that retrogrades ever to barbarism, by preserving and

communicating heroic sentiments, noble biographies, melodious verse, and the conclusions of history. Whatsoever oracles the human heart, in all emergencies, in all solemn hours, has uttered as its commentary on the world of actions,—these he shall receive and impart. And whatsoever new verdict Reason from her inviolable seat pronounces on the passing men and events of to-day,—this he shall hear and promulgate.

These being his functions, it becomes him to feel all confidence in himself, and to defer never to the popular cry. He and he only knows the world. The world of any moment is the merest appearance. Some great decorum, some fetish of a government, some ephemeral trade, or war, or man, is cried up by half mankind and cried down by the other half, as if all depended on this particular up or down. The odds are that the whole question is not worth the poorest thought which the scholar has lost in listening to the controversy. Let him not quit his belief that a popgun is a popgun, though the ancient and honorable of the earth affirm it to be the crack of doom. In silence, in steadiness, in severe abstraction, let him hold by himself; add observation to observation, patient of neglect, patient of reproach, and bide his own time,—happy enough if he can satisfy himself alone that this day he has seen something truly. Success treads on every right step. For the instinct is

sure, that prompts him to tell his brother what he thinks. He then learns that in going down into the secrets of his own mind he has descended into the secrets of all minds. He learns that he who has mastered any law in his private thoughts is master to that extent of all men whose language he speaks, and of all into whose language his own can be translated. The poet, in utter solitude remembering his spontaneous thoughts and recording them, is found to have recorded that which men in crowded cities find true for them also. The orator distrusts at first the fitness of his frank confessions, his want of knowledge of the persons he addresses, until he finds that he is the complement of his hearers;—that they drink his words because he fulfils for them their own nature; the deeper he dives into his privatest, secretest presentiment, to his wonder he finds this is the most acceptable, most public, and universally true. The people delight in it; the better part of every man feels, This is my music; this is myself.

In self-trust all the virtues are comprehended. Free should the scholar be,—free and brave. Free even to the definition of freedom, "without any hindrance that does not arise out of his own constitution." Brave; for fear is a thing which a scholar by his very function puts behind him. Fear always springs from ignorance. It is a shame to

him if his tranquillity, amid dangerous times, arise from the presumption that like children and women his is a protected class; or if he seek a temporary peace by the diversion of his thoughts from politics or vexed questions, hiding his head like an ostrich in the flowering bushes, peeping into microscopes, and turning rhymes, as a boy whistles to keep his courage up. So is the danger a danger still; so is the fear worse. Man-like let him turn and face it. Let him look into its eye and search its nature, inspect its origin,—see the whelping of this lion,—which lies no great way back; he will then find in himself a perfect comprehension of its nature and extent; he will have made his hands meet on the other side, and can henceforth defy it and pass on superior. The world is his who can see through its pretension. What deafness, what stone-blind custom, what overgrown error you behold is there only by sufferance,—by your sufferance. See it to be a lie, and you have already dealt it its mortal blow.

Yes, we are the cowed,—we the trustless. It is a mischievous notion that we are come late into nature; that the world was finished a long time ago. As the world was plastic and fluid in the hands of God, so it is ever to so much of his attributes as we bring to it. To ignorance and sin, it is flint. They adapt themselves to it as they may; but in proportion as a man has any thing in him

divine, the firmament flows before him and takes his signet and form. Not he is great who can alter matter, but he who can alter my state of mind. They are the kings of the world who give the color of their present thought to all nature and all art, and persuade men by the cheerful serenity of their carrying the matter, that this thing which they do is the apple which the ages have desired to pluck, now at last ripe, and inviting nations to the harvest. The great man makes the great thing. Wherever Macdonald sits, there is the head of the table.[1] Linnæus makes botany the most alluring of studies, and wins it from the farmer and the herb-woman; Davy, chemistry; and Cuvier, fossils. The day is always his who works in it with serenity and great aims. The unstable estimates of men crowd to him whose mind is filled with a truth, as the heaped waves of the Atlantic follow the moon.

For this self-trust, the reason is deeper than can be fathomed,—darker than can be enlightened. I might not carry with me the feeling of my audience in stating my own belief. But I have already shown the ground of my hope, in adverting to the doctrine that man is one. I believe man has been wronged; he has wronged himself. He has almost lost the light that can lead him back

[1] The reply said to have been made by a distinguished Scottish chieftain, when, at a banquet given by a rival, he was asked to take the seat of honor.

to his prerogatives. Men are become of no account. Men in history, men in the world of to-day, are bugs, are spawn, and are called "the mass" and "the herd." In a century, in a millennium, one or two men; that is to say, one or two approximations to the right state of every man. All the rest behold in the hero or the poet their own green and crude being,—ripened; yes, and are content to be less, so *that* may attain to its full stature. What a testimony, full of grandeur, full of pity, is borne to the demands of his own nature, by the poor clansman, the poor partisan, who rejoices in the glory of his chief. The poor and the low find some amends to their immense moral capacity, for their acquiescence in a political and social inferiority. They are content to be brushed like flies from the path of a great person, so that justice shall be done by him to that common nature which it is the dearest desire of all to see enlarged and glorified. They sun themselves in the great man's light, and feel it to be their own element. They cast the dignity of man from their downtrod selves upon the shoulders of a hero, and will perish to add one drop of blood to make that great heart beat, those giant sinews combat and conquer. He lives for us, and we live in him.

Men such as they are very naturally seek money or power; and power because it is as good as money,—the "spoils," so called, "of office." And

why not? for they aspire to the highest, and this, in their sleep-walking, they dream is highest. Wake them and they shall quit the false good and leap to the true, and leave governments to clerks and desks. This revolution is to be wrought by the gradual domestication of the idea of Culture. The main enterprise of the world for splendor, for extent, is the upbuilding of a man. Here are the materials strewn along the ground. The private life of one man shall be a more illustrious monarchy, more formidable to its enemy, more sweet and serene in its influence to its friend, than any kingdom in history. For a man, rightly viewed, comprehendeth the particular natures of all men. Each philosopher, each bard, each actor has only done for me, as by a delegate, what one day I can do for myself. The books which once we valued more than the apple of the eye, we have quite exhausted. What is that but saying that we have come up with the point of view which the universal mind took through the eyes of one scribe; we have been that man, and have passed on. First, one, then another, we drain all cisterns, and waxing greater by all these supplies, we crave a better and more abundant food. The man has never lived that can feed us ever. The human mind cannot be enshrined in a person who shall set a barrier on any one side to this unbounded, unboundable empire. It is one central fire, which, flaming now out

of the lips of Etna, lightens the capes of Sicily, and now out of the throat of Vesuvius, illuminates the towers and vineyards of Naples. It is one light which beams out of a thousand stars. It is one soul which animates all men.

But I have dwelt perhaps tediously upon this abstraction of the Scholar. I ought not to delay longer to add what I have to say of nearer reference to the time and to this country.

Historically, there is thought to be a difference in the ideas which predominate over successive epochs, and there are data for marking the genius of the Classic, of the Romantic, and now of the Reflective or Philosophical age. With the views I have intimated of the oneness or the identity of the mind through all individuals, I do not much dwell on these differences. In fact, I believe each individual passes through all three. The boy is a Greek; the youth, romantic; the adult, reflective. I deny not, however, that a revolution in the leading idea may be distinctly enough traced.

Our age is bewailed as the age of Introversion. Must that needs be evil? We, it seems, are critical; we are embarrassed with second thoughts; we cannot enjoy any thing for hankering to know whereof the pleasure consists; we are lined with eyes; we see with our feet; the time is infected with Hamlet's unhappiness,—

Sicklied o'er with the pale cast of thought.

It is so bad then? Sight is the last thing to be pitied. Would we be blind? Do we fear lest we should outsee nature and God, and drink truth dry? I look upon the discontent of the literary class as a mere announcement of the fact that they find themselves not in the state of mind of their fathers, and regret the coming state as untried; as a boy dreads the water before he has learned that he can swim. If there is any period one would desire to be born in, is it not the age of Revolution; when the old and the new stand side by side and admit of being compared; when the energies of all men are searched by fear and by hope; when the historic glories of the old can be compensated by the rich possibilities of the new era? This time, like all times, is a very good one, if we but know what to do with it.

I read with some joy of the auspicious signs of the coming days, as they glimmer already through poetry and art, through philosophy and science, through church and state.

One of these signs is the fact that the same movement which effected the elevation of what was called the lowest class in the state assumed in literature a very marked and as benign an aspect. Instead of the sublime and beautiful, the near, the low, the common, was explored and poetized. That which had been negligently trodden under

foot by those who were harnessing and provisioning themselves for long journeys into far countries is suddenly found to be richer than all foreign parts. The literature of the poor, the feelings of the child, the philosophy of the street, the meaning of household life, are the topics of the time. It is a great stride. It is a sign,—is it not? of new vigor when the extremities are made active, when currents of warm life run into the hands and the feet. I ask not for the great, the remote, the romantic; what is doing in Italy or Arabia; what is Greek art, or Provençal minstrelsy; I embrace the common, I explore and sit at the feet of the familiar, the low. Give me insight into to-day, and you may have the antique and future worlds. What would we really know the meaning of? The meal in the firkin; the milk in the pan; the ballad in the street; the news of the boat; the glance of the eye; the form and the gait of the body;—show me the ultimate reason of these matters; show me the sublime presence of the highest spiritual cause lurking, as always it does lurk, in these suburbs and extremities of nature; let me see every trifle bristling with the polarity that ranges it instantly on an eternal law; and the shop, the plough, and the ledger referred to the like cause by which light undulates and poets sing;—and the world lies no longer a dull miscellany and lumber-room, but has form and

order; there is no trifle, there is no puzzle, but one design unites and animates the farthest pinnacle and the lowest trench.

This idea has inspired the genius of Goldsmith, Burns, Cowper, and, in a newer time, of Goethe, Wordsworth, and Carlyle. This idea they have differently followed and with various success. In contrast with their writing, the style of Pope, of Johnson, of Gibbon, looks cold and pedantic. This writing is blood-warm. Man is surprised to find that things near are not less beautiful and wondrous than things remote. The near explains the far. The drop is a small ocean. A man is related to all nature. This perception of the worth of the vulgar is fruitful in discoveries. Goethe, in this very thing the most modern of the moderns, has shown us, as none ever did, the genius of the ancients.

There is one man of genius who has done much for this philosophy of life, whose literary value has never yet been rightly estimated;—I mean Emanuel Swedenborg. The most imaginative of men, yet writing with the precision of a mathematician, he endeavored to engraft a purely philosophical Ethics on the popular Christianity of his time. Such an attempt of course must have difficulty which no genius could surmount. But he saw and showed the connection between nature and the affections of the soul. He pierced the em-

blematic or spiritual character of the visible, audible, tangible world. Especially did his shade-loving muse hover over and interpret the lower parts of nature; he showed the mysterious bond that allies moral evil to the foul material forms, and has given in epical parables a theory of insanity, of beasts, of unclean and fearful things.

Another sign of our times, also marked by an analogous political movement, is the new importance given to the single person. Every thing that tends to insulate the individual,—to surround him with barriers of natural respect, so that each man shall feel the world is his, and man shall treat with man as a sovereign state with a sovereign state, —tends to true union as well as greatness. "I learned," said the melancholy Pestalozzi, "that no man in God's wide earth is either willing or able to help any other man." Help must come from the bosom alone. The scholar is that man who must take up into himself all the ability of the time, all the contributions of the past, all the hopes of the future. He must be an university of knowledges. If there be one lesson more than another which should pierce his ear, it is, The world is nothing, the man is all; in yourself is the law of all nature, and you know not yet how a globule of sap ascends; in yourself slumbers the whole of Reason; it is for you to know all; it is for you to dare all. Mr. President and Gentlemen, this confi-

dence in the unsearched might of man belongs, by all motives, by all prophecy, by all preparation, to the American Scholar. We have listened too long to the courtly muses of Europe. The spirit of the American freeman is already suspected to be timid, imitative, tame. Public and private avarice make the air we breathe thick and fat. The scholar is decent, indolent, complaisant. See already the tragic consequence. The mind of this country, taught to aim at low objects, eats upon itself. There is no work for any but the decorous and the complaisant. Young men of the fairest promise, who begin life upon our shores, inflated by the mountain winds, shined upon by all the stars of God, find the earth below not in unison with these, but are hindered from action by the disgust which the principles on which business is managed inspire, and turn drudges, or die of disgust, some of them suicides. What is the remedy? They did not yet see, and thousands of young men as hopeful now crowding to the barriers for the career do not yet see, that if the single man plant himself indomitably on his instincts, and there abide, the huge world will come round to him. Patience,—patience; with the shades of all the good and great for company; and for solace the perspective of your own infinite life; and for work the study and the communication of principles, the making those instincts prevalent, the conver-

sion of the world. Is it not the chief disgrace in the world, not to be an unit;—not to be reckoned one character;—not to yield that peculiar fruit which each man was created to bear, but to be reckoned in the gross, in the hundred, or the thousand, of the party, the section, to which we belong; and our opinion predicted geographically, as the north, or the south? Not so, brothers and friends,—please God, ours shall not be so. We will walk on our own feet; we will work with our own hands; we will speak our own minds. The study of letters shall be no longer a name for pity, for doubt, and for sensual indulgence. The dread of man and the love of man shall be a wall of defence and a wreath of joy around all. A nation of men will for the first time exist, because each believes himself inspired by the Divine Soul which also inspires all men.

THE METHOD OF SCIENTIFIC DISCOVERY[1]

THOMAS HENRY HUXLEY

In the two preceding lectures I have endeavored to indicate to you the extent of the subject-matter of the inquiry upon which we are engaged; and having thus acquired some conception of the Past and Present phenomena of Organic Nature, I must now turn to that which constitutes the great problem which we have set before ourselves;—I mean, the question of what knowledge we have of the causes of these phenomena of organic nature, and how such knowledge is obtainable.

Here, on the threshold of the inquiry, an objection meets us. There are in the world a number of extremely worthy, well-meaning persons, whose judgments and opinions are entitled to the utmost respect on account of their sincerity, who are of opinion that Vital Phenomena, and especially all questions relating to the origin of vital phenom-

[1] *On the Origin of Species,* Lecture iii. The full title of the lecture is *The Method by Which the Causes of the Present and Past Conditions of Organic Nature Are to Be Discovered.—The Origination of Living Beings.*

ena, are questions quite apart from the ordinary run of inquiry, and are, by their very nature, placed out of our reach. They say that all these phenomena originated miraculously, or in some way totally different from the ordinary course of nature, and that therefore they conceive it to be futile, not to say presumptuous, to attempt to inquire into them.

To such sincere and earnest persons, I would only say, that a question of this kind is not to be shelved upon theoretical or speculative grounds. You may remember the story of the Sophist who demonstrated to Diogenes in the most complete and satisfactory manner that he could not walk; that, in fact, all motion was an impossibility; and that Diogenes refuted him by simply getting up and walking round his tub. So, in the same way, the man of science replies to objections of this kind, by simply getting up and walking onward, and showing what science has done and is doing,—by pointing to that immense mass of facts which have been ascertained and systematized under the forms of the great doctrines of Morphology, of Development, of Distribution, and the like. He sees an enormous mass of facts and laws relating to organic beings, which stand on the same good sound foundation as every other natural law. With this mass of facts and laws before us, therefore, seeing that, as far as organic matters have hitherto been

accessible and studied, they have shown themselves capable of yielding to scientific investigation, we may accept this as proof that order and law reign there as well as in the rest of nature. The man of science says nothing to objectors of this sort, but supposes that we can and shall walk to a knowledge of the origin of organic nature, in the same way that we have walked to a knowledge of the laws and principles of the inorganic world.

But there are objectors who say the same from ignorance and ill-will. To such I would reply that the objection comes ill from them, and that the real presumption, I may almost say the real blasphemy, in this matter, is in the attempt to limit that inquiry into the causes of phenomena, which is the source of all human blessings, and from which has sprung all human prosperity and progress; for, after all, we can accomplish comparatively little; the limited range of our own faculties bounds us on every side,—the field of our powers of observation is small enough, and he who endeavors to narrow the sphere of our inquiries is only pursuing a course that is likely to produce the greatest harm to his fellow-men.

But now, assuming, as we all do, I hope, that these phenomena are properly accessible to inquiry, and setting out upon our search into the causes of the phenomena of organic nature, or, at any rate, setting out to discover how much we at

present know upon these abstruse matters, the question arises as to what is to be our course of proceeding, and what method we must lay down for our guidance. I reply to that question, that our method must be exactly the same as that which is pursued in any other scientific inquiry, the method of scientific investigation being the same for all orders of facts and phenomena whatsoever.

I must dwell a little on this point, for I wish you to leave this room with a very clear conviction that scientific investigation is not, as many people seem to suppose, some kind of modern black art. I say that you might easily gather this impression from the manner in which many persons speak of scientific inquiry, or talk about inductive and deductive philosophy, or the principles of the "Baconian philosophy." I do protest that, of the vast number of cants in this world, there are none, to my mind, so contemptible as the pseudo-scientific cant which is talked about the "Baconian philosophy."

To hear people talk about the great Chancellor,[1] —and a very great man he certainly was,—you would think that it was he who had invented science, and that there was no such thing as sound reasoning before the time of Queen Elizabeth! Of course you say, that cannot possibly be true; you

[1] Francis Bacon, Lord Verulam (1561-1626), English philosopher and statesman.

perceive, on a moment's reflection, that such an idea is absurdly wrong; and yet, so firmly rooted is this sort of impression,—I cannot call it an idea, or conception,—the thing is too absurd to be entertained,—but so completely does it exist at the bottom of most men's minds, that this has been a matter of observation with me for many years past. There are many men who, though knowing absolutely nothing of the subject with which they may be dealing, wish, nevertheless, to damage the author of some view with which they think fit to disagree. What they do, then, is not to go and learn something about the subject, which one would naturally think the best way of fairly dealing with it; but they abuse the originator of the view they question, in a general manner, and wind up by saying that, "After all, you know, the principles and method of this author are totally opposed to the canons of the Baconian philosophy." Then everybody applauds, as a matter of course, and agrees that it must be so. But if you were to stop them all in the middle of their applause, you would probably find that neither the speaker nor his applauders could tell you how or in what way it was so; neither the one nor the other having the slightest idea of what they mean when they speak of the "Baconian philosophy."

You will understand, I hope, that I have not the slightest desire to join in the outcry against either

the morals, the intellect, or the great genius of Lord Chancellor Bacon. He was undoubtedly a very great man, let people say what they will of him; but notwithstanding all that he did for philosophy, it would be entirely wrong to suppose that the methods of modern scientific inquiry originated with him, or with his age; they originated with the first man, whoever he was; and indeed existed long before him, for many of the essential processes of reasoning are exerted by the higher order of brutes as completely and effectively as by ourselves. We see in many of the brute creation the exercise of one, at least, of the same powers of reasoning as that which we ourselves employ.

The method of scientific investigation is nothing but the expression of the necessary mode of working of the human mind. It is simply the mode at which all phenomena are reasoned about, rendered precise and exact. There is no more difference, but there is just the same kind of difference, between the mental operations of a man of science and those of an ordinary person, as there is between the operations and methods of a baker or of a butcher weighing out his goods in common scales, and the operations of a chemist in performing a difficult and complex analysis by means of his balance and finely-graduated weights. It is not that the action of the scales in the one case, and

the balance in the other, differ in the principles of their construction or manner of working; but the beam of one is set on an infinitely finer axis than the other, and of course turns by the addition of a much smaller weight.

You will understand this better, perhaps, if I give you some familiar example. You have all heard it repeated, I dare say, that men of science work by means of Induction and Deduction, and that by the help of these operations, they, in a sort of sense, wring from Nature certain other things, which are called Natural Laws, and Causes, and that out of these, by some cunning skill of their own, they build up Hypotheses and Theories. And it is imagined by many, that the operations of the common mind can be by no means compared with these processes, and that they have to be acquired by a sort of special apprenticeship to the craft. To hear all these large words, you would think that the mind of a man of science must be constituted differently from that of his fellow-men; but if you will not be frightened by terms, you will discover that you are quite wrong, and that all these terrible apparatus are being used by yourselves every day and every hour of your lives.

There is a well known incident in one of Molière's plays, where the author makes the hero express unbounded delight on being told that he

had been talking prose during the whole of his life.[1] In the same way, I trust, that you will take comfort, and be delighted with yourselves, on the discovery that you have been acting on the principles of inductive and deductive philosophy during the same period. Probably there is not one here who has not in the course of the day had occasion to set in motion a complex train of reasoning, of the very same kind, though differing of course in degree, as that which a scientific man goes through in tracing the causes of natural phenomena.

A very trivial circumstance will serve to exemplify this. Suppose you go into a fruiterer's shop, wanting an apple,—you take up one, and, on biting it, you find it is sour; you look at it, and see that it is hard and green. You take up another one, and that too is hard, green, and sour. The shopman offers you a third; but, before biting it, you examine it, and find that it is hard and green, and you immediately say that you will not have it, as it must be sour, like those that you have already tried.

Nothing can be more simple than that, you think; but if you will take the trouble to analyze and trace out into its logical elements what has been done by the mind, you will be greatly sur-

[1] The incident occurs in *Le Bourgeois Gentilhomme*, the hero of which is Monsieur Jourdain.

prised. In the first place, you have performed the operation of Induction. You found that, in two experiences, hardness and greenness in apples went together with sourness. It was so in the first case, and it was confirmed by the second. True, it is a very small basis, but still it is enough to make an induction from; you generalize the facts, and you expect to find sourness in apples where you get hardness and greenness. You found upon that a general law, that all hard and green apples are sour; and that, so far as it goes, is a perfect induction. Well, having got your natural law in this way, when you are offered another apple which you find is hard and green, you say, "All hard and green apples are sour; this apple is hard and green, therefore this apple is sour." That train of reasoning is what logicians call a syllogism, and has all its various parts and terms,—its major premiss, its minor premiss, and its conclusion. And, by the help of further reasoning, which, if drawn out, would have to be exhibited in two or three other syllogisms, you arrive at your final determination, "I will not have that apple." So that, you see, you have, in the first place, established a law by Induction, and upon that you have founded a Deduction, and reasoned out the special conclusion of the particular case. Well now, suppose, having got your law, that at some time afterwards, you are discussing the qualities of

apples with a friend: you will say to him, "It is a very curious thing,—but I find that all hard and green apples are sour!" Your friend says to you, "But how do you know that?" You at once reply, "Oh, because I have tried them over and over again, and have always found them to be so." Well, if we were talking science instead of common sense, we should call that an Experimental Verification. And, if still opposed, you go further, and say, "I have heard from the people in Somersetshire and Devonshire, where a large number of apples are grown, that they have observed the same thing. It is also found to be the case in Normandy, and in North America. In short, I find it to be the universal experience of mankind wherever attention has been directed to the subject." Whereupon, your friend, unless he is a very unreasonable man, agrees with you, and is convinced that you are quite right in the conclusion you have drawn. He believes, although perhaps he does not know he believes it, that the more extensive Verifications are,—that the more frequently experiments have been made, and results of the same kind arrived at,—that the more varied the conditions under which the same results are attained, the more certain is the ultimate conclusion, and he disputes the question no further. He sees that the experiment has been tried under all sorts of conditions, as to time, place, and people,

with the same result; and he says with you, therefore, that the law you have laid down must be a good one, and he must believe it.

In science we do the same thing;—the philosopher exercises precisely the same faculties, though in a much more delicate manner. In scientific inquiry it becomes a matter of duty to expose a supposed law to every possible kind of verification, and to take care, moreover, that this is done intentionally, and not left to a mere accident, as in the case of the apples. And in science, as in common life, our confidence in a law is in exact proportion to the absence of variation in the result of our experimental verifications. For instance, if you let go your grasp of an article you may have in your hand, it will immediately fall to the ground. That is a very common verification of one of the best established laws of nature—that of gravitation. The method by which men of science establish the existence of that law is exactly the same as that by which we have established the trivial proposition about the sourness of hard and green apples. But we believe it in such an extensive, thorough, and unhesitating manner because the universal experience of mankind verifies it, and we can verify it ourselves at any time; and that is the strongest possible foundation on which any natural law can rest.

So much, then, by way of proof that the method

of establishing laws in science is exactly the same as that pursued in common life. Let us now turn to another matter, (though really it is but another phase of the same question,) and that is, the method by which, from the relations of certain phenomena, we prove that some stand in the position of causes towards the others.

I want to put the case clearly before you, and I will therefore show you what I mean by another familiar example. I will suppose that one of you, on coming down in the morning to the parlor of your house, finds that a tea-pot and some spoons which had been left in the room on the previous evening are gone,—the window is open, and you observe the mark of a dirty hand on the window-frame, and perhaps, in addition to that, you notice the impress of a hobnailed shoe on the gravel outside. All these phenomena have struck your attention instantly, and before two seconds have passed you say, "Oh, somebody has broken open the window, entered the room, and run off with the spoons and the tea-pot!" That speech is out of your mouth in a moment. And you will probably add, "I know there has; I am quite sure of it!" You mean to say exactly what you know; but in reality you are giving expression to what is, in all essential particulars, an Hypothesis. You do not *know* it at all; it is nothing but an hypothesis rapidly framed in your own mind! And, it is an

hypothesis founded on a long train of inductions and deductions.

What are those inductions and deductions, and how have you got at this hypothesis? You have observed, in the first place, that the window is open; but by a train of reasoning involving many Inductions and Deductions, you have probably arrived long before at the General Law—and a very good one it is—that windows do not open of themselves; and you therefore conclude that something has opened the window. A second general law that you have arrived at in the same way is, that tea-pots and spoons do not go out of a window spontaneously, and you are satisfied that, as they are not now where you left them, they have been removed. In the third place, you look at the marks on the window-sill, and the shoe-marks outside, and you say that in all previous experience the former kind of mark has never been produced by anything else but the hand of a human being; and the same experience shows that no other animal but man at present wears shoes with hobnails in them such as would produce the marks in the gravel. I do not know, even if we could discover any of those "missing links" that are talked about, that they would help us to any other conclusion! At any rate the law which states our present experience is strong enough for my present purpose. You next reach the conclusion, that as these kinds of marks

have not been left by any other animals than men, or are liable to be formed in any other way than by a man's hand and shoe, the marks in question have been formed by a man in that way. You have, further, a general law, founded on observation and experience, and that, too, is, I am sorry to say, a very universal and unimpeachable one,—that some men are thieves; and you assume at once from all these premisses—and that is what constitutes your hypothesis—that the man who made the marks outside and on the window-sill opened the window, got into the room, and stole your teapot and spoons. You have now arrived at a *Vera Causa*[1];—you have assumed a Cause which it is plain is competent to produce all the phenomena you have observed. You can explain all these phenomena only by the hypothesis of a thief. But that is a hypothetical conclusion, of the justice of which you have no absolute proof at all; it is only rendered highly probable by a series of inductive and deductive reasonings.

I suppose your first action, assuming that you are a man of ordinary common sense, and that you have established this hypothesis to your own satisfaction, will very likely be to go off for the police, and set them on the track of the burglar, with the view to the recovery of your property. But just as you are starting with this object, some person

[1] True cause.

comes in, and on learning what you are about, says, "My good friend, you are going on a great deal too fast. How do you know that the man who really made the marks took the spoons? It might have been a monkey that took them, and the man may have merely looked in afterwards." You would probably reply, "Well, that is all very well, but you see it is contrary to all experience of the way tea-pots and spoons are abstracted; so that, at any rate, your hypothesis is less probable than mine." While you are talking the thing over in this way, another friend arrives, one of that good kind of people that I was talking of a little while ago. And he might say, "Oh, my dear sir, you are certainly going on a great deal too fast. You are most presumptuous. You admit that all these occurrences took place when you were fast asleep, at a time when you could not possibly have known anything about what was taking place. How do you know that the laws of Nature are not suspended during the night? It may be that there has been some kind of supernatural interference in this case." In point of fact, he declares that your hypothesis is one of which you cannot at all demonstrate the truth, and that you are by no means sure that the laws of Nature are the same when you are asleep as when you are awake.

Well, now, you cannot at the moment answer that kind of reasoning. You feel that your worthy

friend has you somewhat at a disadvantage. You will feel perfectly convinced in your own mind, however, that you are quite right, and you say to him, " My good friend, I can only be guided by the natural probabilities of the case, and if you will be kind enough to stand aside and permit me to pass, I will go and fetch the police." Well, we will suppose that your journey is successful, and that by good luck you meet with a policeman; that eventually the burglar is found with your property on his person, and the marks correspond to his hand and to his boots. Probably any jury would consider those facts a very good experimental verification of your hypothesis, touching the cause of the abnormal phenomena observed in your parlor, and would act accordingly.

Now, in this supposititious case, I have taken phenomena of a very common kind, in order that you might see what are the different steps in an ordinary process of reasoning, if you will only take the trouble to analyze it carefully. All the operations I have described, you will see, are involved in the mind of any man of sense in leading him to a conclusion as to the course he should take in order to make good a robbery and punish the offender. I say that you are led, in that case, to your conclusion by exactly the same train of reasoning as that which a man of science pursues when he is endeavoring to discover the origin and laws

of the most occult phenomena. The process is, and always must be, the same; and precisely the same mode of reasoning was employed by Newton and Laplace in their endeavors to discover and define the causes of the movements of the heavenly bodies, as you, with your own common sense, would employ to detect a burglar. The only difference is, that the nature of the inquiry being more abstruse, every step has to be most carefully watched, so that there may not be a single crack or flaw in your hypothesis. A flaw or crack in many of the hypotheses of daily life may be of little or no moment as affecting the general correctness of the conclusions at which we may arrive; but in a scientific inquiry a fallacy, great or small, is always of importance, and is sure to be in the long run constantly productive of mischievous, if not fatal results.

Do not allow yourselves to be misled by the common notion that an hypothesis is untrustworthy simply because it is an hypothesis. It is often urged, in respect to some scientific conclusion, that, after all, it is only an hypothesis. But what more have we to guide us in nine-tenths of the most important affairs of daily life than hypotheses, and often very ill-based ones? So that in science, where the evidence of an hypothesis is subjected to the most rigid examination, we may rightly pursue the same course. You may have hypoth-

eses and hypotheses. A man may say, if he likes, that the moon is made of green cheese: that is an hypothesis. But another man, who has devoted a great deal of time and attention to the subject, and availed himself of the most powerful telescopes and the results of the observations of others, declares that in his opinion it is probably composed of materials very similar to those of which our own earth is made up: and that is also only an hypothesis. But I need not tell you that there is an enormous difference in the value of the two hypotheses. That one which is based on sound scientific knowledge is sure to have a corresponding value; and that which is a mere hasty random guess is likely to have but little value. Every great step in our progress in discovering causes has been made in exactly the same way as that which I have detailed to you. A person observing the occurrence of certain facts and phenomena asks, naturally enough, what process, what kind of operation known to occur in nature applied to the particular case, will unravel and explain the mystery? Hence you have the scientific hypothesis; and its value will be proportionate to the care and completeness with which its basis had been tested and verified. It is in these matters as in the commonest affairs of practical life: the guess of the fool will be folly, while the guess of the wise man will contain wisdom. In all cases, you see that the value

of the result depends on the patience and faithfulness with which the investigator applies to his hypothesis every possible kind of verification.

I dare say I may have to return to this point by-and-by; but having dealt thus far with our logical methods, I must now turn to something which, perhaps, you may consider more interesting, or, at any rate, more tangible. But in reality there are but few things that can be more important for you to understand than the mental processes and the means by which we obtain scientific conclusions and theories.[1] Having granted that the inquiry is a proper one, and having determined on the nature of the methods we are to pursue and which only can lead to success, I must now turn to the consideration of our knowledge of the nature of the processes which have resulted in the present condition of organic nature.

Here, let me say at once, lest some of you misunderstand me, that I have extremely little to report. The question of how the present condition of organic nature came about, resolves itself into two questions. The first is: How has organic or living matter commenced its existence? And the second is: How has it been perpetuated? On the

[1] Those who wish to study fully the doctrines of which I have endeavored to give some rough and ready illustrations must read Mr. John Stuart Mill's "System of Logic." [Author's note.]

second question I shall have more to say hereafter. But on the first one, what I now have to say will be for the most part of a negative character.

If you consider what kind of evidence we can have upon this matter, it will resolve itself into two kinds. We may have historical evidence and we may have experimental evidence. It is, for example, conceivable, that inasmuch as the hardened mud which forms a considerable portion of the thickness of the earth's crust contains faithful records of the past forms of life, and inasmuch as these differ more and more as we go further down,—it is possible and conceivable that we might come to some particular bed or stratum which should contain the remains of those creatures with which organic life began upon the earth. And if we did so, and if such forms of organic life were preservable, we should have what I would call historical evidence of the mode in which organic life began upon this planet. Many persons will tell you, and indeed you will find it stated in many works on geology, that this has been done, and that we really possess such a record; there are some who imagine that the earliest forms of life of which we have as yet discovered any record, are in truth the forms in which animal life began upon the globe. The grounds on which they base that supposition are these:—That if you go through the enormous

thickness of the earth's crust and get down to the older rocks, the higher vertebrate animals—the quadrupeds, birds, and fishes—cease to be found; beneath them you find only the invertebrate animals; and in the deepest and lowest rocks those remains become scantier and scantier, not in any very gradual progression, however, until, at length, in what are supposed to be the oldest rocks, the animal remains which are found are almost always confined to four forms,—*Oldhamia*, whose precise nature is not known, whether plant or animal; *Lingula*, a kind of mollusc; *Trilobites*, a crustacean animal, having the same essential plan of construction, though differing in many details from a lobster or crab; and *Hymenocaris*, which is also a crustacean. So that you have all the *Fauna* reduced, at this period, to four forms: one a kind of animal or plant that we know nothing about, and three undoubted animals—two crustaceans and one mollusc.

I think, considering the organization of these mollusca and crustacea, and looking at their very complex nature, that it does indeed require a very strong imagination to conceive that these were the first created of all living things. And you must take into consideration the fact that we have not the slightest proof that these which we call the oldest beds are really so: I repeat, we have not the slightest proof of it. When you find in some

places that in an enormous thickness of rocks there are but very scanty traces of life, or absolutely none at all; and that in other parts of the world rocks of the very same formation are crowded with the records of living forms, I think it is impossible to place any reliance on the supposition, or to feel oneself justified in supposing that these are the forms in which life first commenced. I have not time here to enter upon the technical grounds upon which I am led to this conclusion,—that could hardly be done properly in half a dozen lectures on that part alone;—I must content myself with saying that I do not at all believe that these are the oldest forms of life.

I turn to the experimental side to see what evidence we have there. To enable us to say that we know anything about the experimental origination of organization and life, the investigator ought to be able to take inorganic matters, such as carbonic acid, ammonia, water, and salines, in any sort of inorganic combination, and be able to build them up into Protein matter, and then that Protein matter ought to begin to live in an organic form. That, nobody has done as yet, and I suspect it will be a long while before anybody does do it. But the thing is by no means so impossible as it looks; for the researches of modern chemistry have shown us —I won't say the road towards it, but, if I may so

say, they have shown the finger-post pointing to the road that may lead to it.

It is not many years ago—and you must recollect that Organic Chemistry is a young science, not above a couple of generations old, you must not expect too much of it,—it is not many years ago since it was said to be perfectly impossible to fabricate any organic compound; that is to say, any non-mineral compound which is to be found in an organized being. It remained so for a very long period; but it is now a considerable number of years since a distinguished foreign chemist contrived to fabricate Urea, a substance of a very complex character, which forms one of the waste products of animal structures. And of late years a number of other compounds, such as Butyric Acid, and others, have been added to the list. I need not tell you that chemistry is an enormous distance from the goal I indicate; all I wish to point out to you is, that it is by no means safe to say that that goal may not be reached one day. It may be that it is impossible for us to produce the conditions requisite to the origination of life; but we must speak modestly about the matter, and recollect that Science has put her foot upon the bottom round of the ladder. Truly he would be a bold man who would venture to predict where she will be fifty years hence.

There is another inquiry which bears indirectly

upon this question, and upon which I must say a few words. You are all of you aware of the phenomena of what is called spontaneous generation. Our forefathers, down to the seventeenth century, or thereabouts, all imagined, in perfectly good faith, that certain vegetable and animal forms gave birth, in the process of their decomposition, to insect life. Thus, if you put a piece of meat in the sun, and allowed it to putrefy, they conceived that the grubs which soon began to appear were the result of the action of a power of spontaneous generation which the meat contained. And they could give you receipts for making various animal and vegetable preparations which would produce particular kinds of animals. A very distinguished Italian naturalist, named Redi,[1] took up the question, at a time when everybody believed in it; among others our own great Harvey, the discoverer of the circulation of the blood. You will constantly find his name quoted, however, as an opponent of the doctrine of spontaneous generation; but the fact is, and you will see it if you take the trouble to look into his works, Harvey believed it as profoundly as any man of his time; but he happened to enunciate a very curious proposition—that every living thing came from an *egg;* he did not mean to use the word in the sense in which we now employ it, he only meant to say that every liv-

[1] Francesco Redi (1626-1698).

ing thing originated in a little rounded particle of organized substance; and it is from this circumstance, probably, that the notion of Harvey having opposed the doctrine originated. Then came Redi, and he proceeded to upset the doctrine in a very simple manner. He merely covered the piece of meat with some very fine gauze, and then he exposed it to the same conditions. The result of this was that no grubs or insects were produced; he proved that the grubs originated from the insects who came and deposited their eggs in the meat, and that they were hatched by the heat of the sun. By this kind of inquiry he thoroughly upset the doctrine of spontaneous generation, for his time at least.

Then came the discovery and application of the microscope to scientific inquiries, which showed to naturalists that besides the organisms which they already knew as living beings and plants, there were an immense number of minute things which could be obtained apparently almost at will from decaying vegetable and animal forms. Thus, if you took some ordinary black pepper or some hay, and steeped it in water, you would find in the course of a few days that the water had become impregnated with an immense number of animalcules swimming about in all directions. From facts of this kind naturalists were led to revive the theory of spontaneous generation. They were headed

here by an English naturalist,—Needham,[1]—and afterwards in France by the learned Buffon. They said that these things were absolutely begotten in the water of the decaying substances out of which the infusion was made. It did not matter whether you took animal or vegetable matter, you had only to steep it in water and expose it, and you would soon have plenty of animalcules. They made an hypothesis about this which was a very fair one. They said, this matter of the animal world, or of the higher plants, appears to be dead, but in reality it has a sort of dim life about it, which, if it is placed under fair conditions, will cause it to break up into the forms of these little animalcules, and they will go through their lives in the same way as the animal or plant of which they once formed a part.

The question now became very hotly debated. Spallanzani,[2] an Italian naturalist, took up opposite views to those of Needham and Buffon, and by means of certain experiments he showed that it was quite possible to stop the process by boiling the water, and closing the vessel in which it was contained. "Oh!" said his opponents; "but what do you know you may be doing when you heat the air over the water in this way? You may be de-

[1] John Turberville Needham (1713-1781), Catholic divine and man of science.

[2] Lazaro Spallanzani (1729-1799).

stroying some property of the air requisite for the spontaneous generation of the animalcules."

However, Spallanzani's views were supposed to be upon the right side, and those of the others fell into discredit; although the fact was that Spallanzani had not made good his views. Well, then, the subject continued to be revived from time to time, and experiments were made by several persons; but these experiments were not altogether satisfactory. It was found that if you put an infusion in which animalcules would appear if it were exposed to the air into a vessel and boiled it, and then sealed up the mouth of the vessel, so that no air, save such as had been heated to 212°, could reach its contents, that then no animalcules would be found; but if you took the same vessel and exposed the infusion to the air, then you would get animalcules. Furthermore, it was found that if you connected the mouth of the vessel with a red-hot tube in such a way that the air would have to pass through the tube before reaching the infusion, that then you would get no animalcules. Yet another thing was noticed: if you took two flasks containing the same kind of infusion, and left one entirely exposed to the air, and in the mouth of the other placed a ball of cotton wool, so that the air would have to filter itself through it before reaching the infusion, that then, although you might have plenty of animalcules in the first

flask, you would certainly obtain none from the second.

These experiments, you see, all tended towards one conclusion—that the infusoria were developed from little minute spores or eggs which were constantly floating in the atmosphere, and which lose their power of germination if subjected to heat. But one observer[1] now made another experiment, which seemed to go entirely the other way, and puzzled him altogether. He took some of this boiled infusion that I have been speaking of, and by the use of a mercurial bath—a kind of trough used in laboratories—he deftly inverted a vessel containing the infusion into the mercury, so that the latter reached a little beyond the level of the mouth of the *inverted* vessel. You see that he thus had a quantity of the infusion shut off from any possible communication with the outer air by being inverted upon a bed of mercury.

He then prepared some pure oxygen and nitrogen gases, and passed them by means of a tube going from the outside of the vessel, up through the mercury into the infusion; so that he thus had it exposed to a perfectly pure atmosphere of the same constituents as the external air. Of course, he expected he would get no infusorial animalcules at all in that infusion; but, to his great dismay

[1] Theodor Schwann (1810-1882), a German physiologist.

and discomfiture, he found he almost always did get them.

Furthermore, it has been found that experiments made in the manner described above answer well with most infusions; but that if you fill the vessel with boiled milk, and then stop the neck with cotton-wool, you *will* have infusoria. So that you see there were two experiments that brought you to one kind of conclusion, and three to another; which was a most unsatisfactory state of things to arrive at in a scientific inquiry.

Some few years after this, the question began to be very hotly discussed in France. There was M. Pouchet,[1] a professor at Rouen, a very learned man, but certainly not a very rigid experimentalist. He published a number of experiments of his own, some of which were very ingenious, to show that if you went to work in a proper way, there was a truth in the doctrine of spontaneous generation. Well, it was one of the most fortunate things in the world that M. Pouchet took up this question, because it induced a distinguished French chemist, M. Pasteur, to take up the question on the other side; and he has certainly worked it out in the most perfect manner. I am glad to say, too, that he has published his researches in time to enable me to give you an account of them. He verified all the experiments which I have just mentioned

[1] Félix-Archimède Pouchet (1800-1872).

to you—and then finding those extraordinary anomalies, as in the case of the mercury bath and the milk, he set himself to work to discover their nature. In the case of milk he found it to be a question of temperature. Milk in a fresh state is slightly alkaline; and it is a very curious circumstance, but this very slight degree of alkalinity seems to have the effect of preserving the organisms which fall into it from the air from being destroyed at a temperature of 212°, which is the boiling point. But if you raise the temperature 10° when you boil it, the milk behaves like everything else; and if the air with which it comes in contact, after being boiled at this temperature, is passed through a red-hot tube, you will not get a trace of organisms.

He then turned his attention to the mercury bath, and found on examination that the surface of the mercury was almost always covered with a very fine dust. He found that even the mercury itself was positively full of organic matters; that from being constantly exposed to the air, it had collected an immense number of these infusorial organisms from the air. Well, under these circumstances he felt that the case was quite clear, and that the mercury was not what it had appeared to M. Schwann to be,—a bar to the admission of these organisms; but that, in reality, it acted as a reservoir from which the infusion was immediately

supplied with the large quantity that had so puzzled him.

But not content with explaining the experiments of others, M. Pasteur went to work to satisfy himself completely. He said to himself: "If my view is right, and if, in point of fact, all these appearances of spontaneous generation are altogether due to the falling of minute germs suspended in the atmosphere,—why, I ought not only to be able to show the germs, but I ought to be able to catch and sow them, and produce the resulting organisms." He, accordingly, constructed a very ingenious apparatus to enable him to accomplish the trapping of the "*germ dust*" in the air. He fixed in the window of his room a glass tube, in the centre of which he had placed a ball of gun-cotton, which, as you all know, is ordinary cotton-wool, which, from having been steeped in strong acid, is converted into a substance of great explosive power. It is also soluble in alcohol and ether. One end of the glass tube was, of course, open to the external air; and at the other end of it he placed an aspirator, a contrivance for causing a current of the external air to pass through the tube. He kept this apparatus going for four-and-twenty hours, and then removed the *dusted* gun-cotton, and dissolved it in alcohol and ether. He then allowed this to stand for a few hours, and the result was, that a very fine dust was gradually

deposited at the bottom of it. That dust, on being transferred to the stage of a microscope, was found to contain an enormous number of starch grains. You know that the materials of our food and the greater portion of plants are composed of starch, and we are constantly making use of it in a variety of ways, so that there is always a quantity of it suspended in the air. It is these starch grains which form many of those bright specks that we see dancing in a ray of light sometimes. But besides these, M. Pasteur found also an immense number of other organic substances such as spores of fungi, which had been floating about in the air and had got caged in this way.

He went farther, and said to himself: "If these really are the things that give rise to the appearance of spontaneous generation, I ought to be able to take a ball of this *dusted* gun-cotton and put it into one of my vessels, containing that boiled infusion which has been kept away from the air, and in which no infusoria are at present developed, and then, if I am right, the introduction of this gun-cotton will give rise to organisms."

Accordingly, he took one of these vessels of infusion, which had been kept eighteen months, without the least appearance of life in it, and by a most ingenious contrivance, he managed to break it open and introduce such a ball of gun-cotton, without allowing the infusion or the cotton ball to

come into contact with any air but that which had been subjected to a red heat, and in twenty-four hours he had the satisfaction of finding all the indications of what had been hitherto called spontaneous generation. He had succeeded in catching the germs and developing organisms in the way he had anticipated.

It now struck him that the truth of his conclusions might be demonstrated without all the apparatus he had employed. To do this, he took some decaying animal or vegetable substance, such as urine, which is an extremely decomposable substance, or the juice of yeast, or perhaps some other artificial preparation, and filled a vessel having a long tubular neck with it. He then boiled the liquid and bent that long neck into an S shape or zig-zag, leaving it open at the end. The infusion then gave no trace of any appearance of spontaneous generation, however long it might be left, as all the germs in the air were deposited in the beginning of the bent neck. He then cut the tube close to the vessel, and allowed the ordinary air to have free and direct access; and the result of that was the appearance of organisms in it, as soon as the infusion had been allowed to stand long enough to allow of the growth of those it received from the air, which was about forty-eight hours. The result of M. Pasteur's experiments proved, therefore, in the most conclusive manner, that all

the appearances of spontaneous generation arose from nothing more than the deposition of the germs of organisms which were constantly floating in the air.

To this conclusion, however, the objection was made, that if that were the cause, then the air would contain such an enormous number of these germs, that it would be a continual fog. But M. Pasteur replied that they are not there in anything like the number we might suppose, and that an exaggerated view has been held on that subject; he showed that the chances of animal or vegetable life appearing in infusions depend entirely on the conditions under which they are exposed. If they are exposed to the ordinary atmosphere around us, why, of course, you may have organisms appearing early. But, on the other hand, if they are exposed to air at a great height, or in some very quiet cellar, you will often not find a single trace of life.

So that M. Pasteur arrived at last at the clear and definite result, that all these appearances are like the case of the worms in the piece of meat, which was refuted by Redi, simply germs carried by the air and deposited in the liquids in which they afterwards appear. For my own part, I conceive that, with the particulars of M. Pasteur's experiments before us, we cannot fail to arrive at his conclusions; and that the doctrine of spon-

taneous generation has received a final *coup de grâce.*[1]

You, of course, understand that all this in no way interferes with the *possibility* of the fabrication of organic matters by the direct method to which I have referred, remote as that possibility may be.

[1] Deathblow.

DARWINISM APPLIED TO MAN[1]

ALFRED RUSSEL WALLACE

Our review of modern Darwinism might fitly have terminated with the preceding chapter; but the immense interest that attaches to the origin of the human race, and the amount of misconception which prevails regarding the essential teachings of Darwin's theory on this question, as well as regarding my own special views upon it, induce me to devote a final chapter to its discussion.

To any one who considers the structure of man's body, even in the most superficial manner, it must be evident that it is the body of an animal, differing greatly, it is true, from the bodies of all other animals, but agreeing with them in all essential features. The bony structure of man classes him as a vertebrate; the mode of suckling his young classes him as a mammal; his blood, his muscles, and his nerves, the structure of his heart with its veins and arteries, his lungs and his whole respiratory and circulatory systems, all closely correspond to those of other mammals, and are often

[1] *Darwinism,* London, 1889, Chapter XV. Reprinted through the generous permission of The Macmillan Company.

almost identical with them. He possesses the same number of limbs terminating in the same number of digits as belong fundamentally to the mammalian class. His senses are identical with theirs, and his organs of sense are the same in number and occupy the same relative position. Every detail of structure which is common to the mammalia as a class is found also in man, while he only differs from them in such ways and degrees as the various species or groups of mammals differ from each other. If, then, we have good reason to believe that every existing group of mammalia has descended from some common ancestral form—as we saw to be so completely demonstrated in the case of the horse tribe,—and that each family, each order, and even the whole class must similarly have descended from some much more ancient and more generalized type, it would be in the highest degree improbable—so improbable as to be almost inconceivable—that man, agreeing with them so closely in every detail of his structure, should have had some quite distinct mode of origin. Let us, then, see what other evidence bears upon the question, and whether it is sufficient to convert the probability of his animal origin into a practical certainty.

All the higher animals present rudiments of organs which, though useless to them, are useful

in some allied group, and are believed to have descended from a common ancestor in which they were useful. Thus there are in ruminants rudiments of incisor teeth which, in some species, never cut through the gums; many lizards have external rudimentary legs; while many birds, as the Apteryx, have quite rudimentary wings. Now man possesses similar rudiments, sometimes constantly, sometimes only occasionally present, which serve intimately to connect his bodily structure with that of the lower animals. Many animals, for example, have a special muscle for moving or twitching the skin. In man there are remnants of this in certain parts of the body, especially in the forehead, enabling us to raise our eyebrows; but some persons have it in other parts. A few persons are able to move the whole scalp so as to throw off any object placed on the head, and this property has been proved, in one case, to be inherited. In the outer fold of the ear there is sometimes a projecting point, corresponding in position to the pointed ear of many animals, and believed to be a rudiment of it. In the alimentary canal there is a rudiment—the vermiform appendage of the cæcum —which is not only useless, but is sometimes a cause of disease and death in man; yet in many vegetable feeding animals it is very long, and even in the orang-utan it is of considerable length and convoluted. So, man possesses rudimentary bones

of a tail concealed beneath the skin, and, in some rare cases, this forms a minute external tail.

The variability of every part of man's structure is very great, and many of these variations tend to approximate towards the structure of other animals. The courses of the arteries are eminently variable, so that for surgical purposes it has been necessary to determine the probable proportion of each variation. The muscles are so variable that in fifty cases the muscles of the foot were found to be not strictly alike in any two, and in some the deviations were considerable; while in thirty-six subjects Mr. J. Wood observed no fewer than 558 muscular variations. The same author states that in a single male subject there were no fewer than seven muscular variations, all of which plainly represented muscles proper to various kinds of apes. The muscles of the hands and arms—parts which are so eminently characteristic of man—are extremely liable to vary, so as to resemble the corresponding muscles of the lower animals. That such variations are due to reversion to a former state of existence Mr. Darwin thinks highly probable, and he adds: "It is quite incredible that a man should, through mere accident, abnormally resemble certain apes in no less than seven of his muscles, if there had been no genetic connection between them. On the other hand, if man is descended from some ape-like creature, no valid rea-

son can be assigned why certain muscles should not suddenly reappear after an interval of many thousand generations, in the same manner as, with horses, asses, and mules, dark colored stripes suddenly reappear on the legs and shoulders, after an interval of hundreds, or more probably of thousands, of generations." [1]

The progressive development of any vertebrate from the ovum or minute embryonic egg affords one of the most marvellous chapters in Natural History. We see the contents of the ovum undergoing numerous definite changes, its interior dividing and subdividing till it consists of a mass of cells; then a groove appears marking out the median line or vertebral column of the future animal, and thereafter are slowly developed the various essential organs of the body. After describing in some detail what takes place in the case of the ovum of the dog, Professor Huxley continues: "The history of the development of any other vertebrate animal, lizard, snake, frog, or fish, tells the same story. There is always, to begin with, an egg having the same essential structure as that of the dog; the yelk of that egg undergoes division or segmentation, as it is called; the ultimate products of that segmentation constitute the building

[1] *Descent of Man,* pp. 41-43; also pp. 13-15. [Author's note.]

materials for the body of the young animal; and this is built up round a primitive groove, in the floor of which a notochord is developed. Furthermore, there is a period in which the young of all these animals resemble one another, not merely in outward form, but in all essentials of structure, so closely, that the differences between them are inconsiderable, while in their subsequent course they diverge more and more widely from one another. And it is a general law that the more closely any animals resemble one another in adult structure, the longer and the more intimately do their embryos resemble one another; so that, for example, the embryos of a snake and of a lizard remain like one another longer than do those of a snake and a bird; and the embryos of a dog and of a cat remain like one another for a far longer period than do those of a dog and a bird, or of a dog and an opossum, or even than those of a dog and a monkey." [1]

We thus see that the study of development affords a test of affinity in animals that are externally very much unlike each other; and we naturally ask how this applies to man. Is he developed in a different way from other mammals, as we should certainly expect if he has had a distinct and altogether different origin? "The reply," says Professor Huxley, "is not doubtful for a mo-

[1] *Man's Place in Nature*, p. 64. [Author's note.]

ment. Without question, the mode of origin and the early stages of the development of man are identical with those of the animals immediately below him in the scale." And again he tells us: "It is very long before the body of the young human being can be readily discriminated from that of the young puppy; but at a tolerably early period the two become distinguishable by the different forms of their adjuncts, the yelk-sac and the allantois;" and after describing these differences he continues: "But exactly in those respects in which the developing man differs from the dog, he resembles the ape. . . . So that it is only quite in the later stages of development that the young human being presents marked differences from the young ape, while the latter departs as much from the dog in its development as the man does. Startling as this last assertion may appear to be, it is demonstrably true, and it alone appears to me sufficient to place beyond all doubt the structural unity of man with the rest of the animal world, and more particularly and closely with the apes." [1]

A few of the curious details in which man passes through stages common to the lower animals may be mentioned. At one stage the os coccyx projects like a true tail, extending considerably beyond the rudimentary legs. In the seventh month the convolutions of the brain resemble those of an adult

[1] *Man's Place in Nature*, p. 67. [Author's note.]

baboon. The great toe, so characteristic of man, forming the fulcrum which most assists him in standing erect, in an early stage of the embryo is much shorter than the other toes, and instead of being parallel with them, projects at an angle from the side of the foot, thus corresponding with its permanent condition in the quadrumana. Numerous other examples might be quoted, all illustrating the same general law.

Though the fact is so well known, it is certainly one of profound significance that many animal diseases can be communicated to man, since it shows similarity, if not identity, in the minute structure of the tissues, the nature of the blood, the nerves, and the brain. Such diseases as hydrophobia, variola, the glanders, cholera, herpes, etc., can be transmitted from animals to man or the reverse; while monkeys are liable to many of the same non-contagious diseases as we are. Rengger, who carefully observed the common monkey (*Cebus Azaræ*) in Paraguay, found it liable to catarrh, with the usual symptoms, terminating sometimes in consumption. These monkeys also suffered from apoplexy, inflammation of the bowels, and cataract in the eye. Medicines produced the same effect upon them as upon us. Many kinds of monkeys have a strong taste for tea, coffee, spirits, and even tobacco. These facts show the similarity of the

nerves of taste in monkeys and in ourselves, and that their whole nervous system is affected in a similar way. Even the parasites, both external and internal, that affect man are not altogether peculiar to him, but belong to the same families or genera as those which infest animals, and in one case, scabies, even the same species.[1] These curious facts seem quite inconsistent with the idea that man's bodily structure and nature are altogether distinct from those of animals, and have had a different origin; while the facts are just what we should expect if he has been produced by descent with modification from some common ancestor.

By universal consent we see in the monkey tribe a caricature of humanity. Their faces, their hands, their actions and expressions present ludicrous resemblances to our own. But there is one group of this great tribe in which this resemblance is greatest, and they have hence been called the anthropoid or man-like apes. These are few in number, and inhabit only the equatorial regions of Africa and Asia, countries where the climate is most uniform, the forests densest, and the supply of fruit abundant throughout the year. These animals are now comparatively well known, consisting of the orang-utan of Borneo and Sumatra, the chimpanzee and the gorilla of West Africa, and the

[1] *The Descent of Man,* pp. 7, 8. [Author's note.]

group of gibbons or long-armed apes, consisting of many species and inhabiting Southeastern Asia and the larger Malay Islands. These last are far less like man than the other three, one or other of which has at various times been claimed to be the most man-like of the apes and our nearest relations in the animal kingdom. The question of the degree of resemblance of these animals to ourselves is one of great interest, leading, as it does, to some important conclusions as to our origin and geological antiquity, and we will therefore briefly consider it.

If we compare the skeletons of the orang or chimpanzee with that of man, we find them to be a kind of distorted copy, every bone corresponding (with very few exceptions), but altered somewhat in size, proportions, and position. So great is this resemblance that it led Professor Owen to remark: "I cannot shut my eyes to the significance of that all-pervading similitude of structure —every tooth, every bone, strictly homologous— which makes the determination of the difference between *Homo* and *Pithecus* the anatomist's difficulty."

The actual differences in the skeletons of these apes and that of man—that is, differences dependent on the presence or absence of certain bones, and not on their form or position—have been enumerated by Mr. Mivart as follows: (1) In the

breastbone consisting of but two bones, man agrees with the gibbons; the chimpanzee and gorilla having this part consisting of seven bones in a single series, while in the orang they are arranged in a double series of ten bones. (2) The normal number of the ribs in the orang and some gibbons is twelve pairs, as in man, while in the chimpanzee and gorilla there are thirteen pairs. (3) The orang and the gibbons also agree with man in having five lumbar vertebræ, while in the gorilla and the chimpanzee there are but four, and sometimes only three. (4) The gorilla and chimpanzee agree with man in having eight small bones in the wrist, while the orang and the gibbons, as well as all other monkeys, have nine.[1]

The differences in the form, size, and attachments of the various bones, muscles, and other organs of these apes and man are very numerous and exceedingly complex, sometimes one species, sometimes another agreeing most nearly with ourselves, thus presenting a tangled web of affinities which it is very difficult to unravel. Estimated by the skeleton alone, the chimpanzee and gorilla seem nearer to man than the orang, which last is also inferior as presenting certain aberrations in the muscles.

[1] *Man and Apes.* By St. George Mivart, F.R.S., 1873. It is an interesting fact (for which I am indebted to Mr. E. B. Poulton) that the human embryo possesses the extra rib and wrist-bone referred to above in (2) and (4) as occurring in some of the apes. [Author's note.]

In the form of the ear the gorilla is more human than any other ape, while in the tongue the orang is the more man-like. In the stomach and liver the gibbons approach nearest to man; then come the orang and chimpanzee, while the gorilla has a degraded liver more resembling that of the lower monkeys and baboons.

We come now to that part of his organization in which man is so much higher than all the lower animals—the brain; and here, Mr. Mivart informs us, the orang stands highest in rank. The height of the orang's cerebrum in front is greater in proportion than in either the chimpanzee or the gorilla. "On comparing the brain of man with the brains of the orang, chimpanzee, and baboon, we find a successive decrease in the frontal lobe, and a successive and very great increase in the relative size of the occipital lobe. Concomitantly with this increase and decrease, certain folds of brain substance, called 'bridging convolutions,' which in man are conspicuously interposed between the parietal and occipital lobes, seem as utterly to disappear in the chimpanzee, as they do in the baboon. In the orang, however, though much reduced, they are still to be distinguished. . . . The actual and absolute mass of the brain is, however, slightly greater in the chimpanzee than in the orang, as is the relative vertical extent of the mid-

dle part of the cerebrum, although, as already stated, the frontal portion is higher in the orang; while, according to M. Gratiolet, the gorilla is not only inferior to the orang in cerebral development, but even to his smaller African congener, the chimpanzee." [1]

On the whole, then, we find that no one of the great apes can be positively asserted to be nearest to man in structure. Each of them approaches him in certain characteristics, while in others it is widely removed, giving the idea, so consonant with the theory of evolution as developed by Darwin, that all are derived from a common ancestor, from which the existing anthropoid apes as well as man have diverged. When, however, we turn from the details of anatomy to peculiarities of external form and motions, we find that in a variety of characters all these apes resemble each other and differ from man, so that we may fairly say that while they have diverged somewhat from each other, they have diverged much more widely from ourselves. Let us briefly enumerate some of these differences.

All apes have large canine teeth, while in man these are no longer than the adjacent incisors or premolars, the whole forming a perfectly even series. In apes the arms are proportionately much longer than in man, while the thighs are much

[1] *Man and Apes,* pp. 138, 144. [Author's note.]

shorter. No ape stands really erect, a posture which is natural in man. The thumb is proportionately larger in man, and more perfectly opposable than is that of any ape. The foot of man differs largely from that of all apes, in the horizontal sole, the projecting heel, the short toes, and the powerful great toe firmly attached parallel to the other toes; all perfectly adapted for maintaining the erect posture, and for free motion without any aid from the arms or hands. In apes the foot is formed almost exactly like our hand, with a large thumb-like great toe quite free from the other toes, and so articulated as to be opposable to them; forming with the long finger-like toes a perfect grasping hand. The sole cannot be placed horizontally on the ground; but when standing on a level surface the animal rests on the outer edge of the foot with the finger and thumb-like toes partly closed, while the hands are placed on the ground resting on the knuckles. . . .

The four limbs, with the peculiarly formed feet and hands, are those of arboreal animals which only occasionally and awkwardly move on level ground. The arms are used in progression equally with the feet, and the hands are only adapted for uses similar to those of our hands when the animal is at rest, and then but clumsily. Lastly, the apes are all hairy animals, like the majority of other mammals, man alone having a smooth and almost naked

skin. These numerous and striking differences, even more than those of the skeleton and internal anatomy, point to an enormously remote epoch when the race that was ultimately to develop into man diverged from that other stock which continued the animal type and ultimately produced the existing varieties of anthropoid apes.

The facts now very briefly summarized amount almost to a demonstration that man, in his bodily structure, has been derived from the lower animals, of which he is the culminating development. In his possession of rudimentary structures which are functional in some of the mammalia; in the numerous variations of his muscles and other organs agreeing with characters which are constant in some apes; in his embryonic development, absolutely identical in character with that of mammalia in general, and closely resembling in its details that of the higher quadrumana; in the diseases which he has in common with other mammalia; and in the wonderful approximation of his skeleton to those of one or other of the anthropoid apes, we have an amount of evidence in this direction which it seems impossible to explain away. And this evidence will appear more forcible if we consider for a moment what the rejection of it implies. For the only alternative supposition is, that man has been specially created—that is to say, has been

produced in some quite different way from other animals and altogether independently of them. But in that case the rudimentary structures, the animal-like variations, the identical course of development, and all the other animal characteristics he possesses are deceptive, and inevitably lead us, as thinking beings making use of the reason which is our noblest and most distinctive feature, into gross error.

We cannot believe, however, that a careful study of the facts of nature leads to conclusions directly opposed to the truth; and as we seek in vain, in our physical structure and the course of its development, for any indication of an origin independent of the rest of the animal world, we are compelled to reject the idea of " special creation " for man, as being entirely unsupported by facts as well as in the highest degree improbable.

The evidence we now possess of the exact nature of the resemblance of man to the various species of anthropoid apes, shows us that he has little special affinity for any one rather than another species, while he differs from them all in several important characters in which they agree with each other. The conclusion to be drawn from these facts is, that his points of affinity connect him with the whole group, while his special peculiarities equally separate him from the whole group, and that he must,

therefore, have diverged from the common ancestral form before the existing types of anthropoid apes had diverged from each other. Now, this divergence almost certainly took place as early as the Miocene period, because in the Upper Miocene deposits of Western Europe remains of two species of ape have been found allied to the gibbons, one of them, *Dryopithecus*, nearly as large as a man, and believed by M. Lartet to have approached man in its dentition more than the existing apes. We seem hardly, therefore, to have reached, in the Upper Miocene, the epoch of the common ancestor of man and the anthropoids.

The evidence of the antiquity of man himself is also scanty, and takes us but very little way back into the past. We have clear proof of his existence in Europe in the latter stages of the glacial epoch, with many indications of his presence in interglacial or even pre-glacial times; while both the actual remains and the works of man found in the auriferous gravels of California deep under lava-flows of Pliocene age show that he existed in the New World at least as early as in the Old.[1] These earliest remains of man have been received with doubt, and even with ridicule, as if there were some extreme improbability in them. But, in point of

[1] For a sketch of the evidence of Man's Antiquity in America, see the *Nineteenth Century* for November, 1887. [Author's note.]

fact, the wonder is that human remains have not been found more frequently in pre-glacial deposits. Referring to the most ancient fossil remains found in Europe,—the Engis and Neanderthal crania,—Professor Huxley makes the following weighty remark: "In conclusion, I may say, that the fossil remains of Man hitherto discovered do not seem to me to take us appreciably nearer to that lower pithecoid form, by the modification of which he has, probably, become what he is." The Californian remains and work of art, above referred to, give no indication of a specially low form of man; and it remains an unsolved problem why no traces of the long line of man's ancestors, back to the remote period when be first branched off from the pithecoid type, have yet been discovered.

It has been objected by some writers—notably by Professor Boyd Dawkins—that man did not probably exist in Pliocene times, because almost all the known mammalia of that epoch are distinct species from those now living on the earth, and that the same changes of the environment which led to the modification of other mammalian species would also have led to a change in man. But this argument overlooks the fact that man differs essentially from all other mammals in this respect, that whereas any important adaptation to new conditions can be effected in them only by a change in bodily structure, man is able to adapt himself to

much greater changes of conditions by a mental development leading him to the use of fire, of tools, of clothing, of improved dwellings, of nets and snares, and of agriculture. By the help of these, without any change whatever in his bodily structure, he has been able to spread over and occupy the whole earth; to dwell securely in forest, plain, or mountain; to inhabit alike the burning desert or the arctic wastes; to cope with every kind of wild beast, and to provide himself with food in districts where, as an animal trusting to nature's unaided productions, he would have starved.[1]

It follows, therefore, that from the time when the ancestral man first walked erect, with hands freed from any active part in locomotion, and when his brain-power became sufficient to cause him to use his hands in making weapons and tools, houses and clothing, to use fire for cooking, and to plant seeds or roots to supply himself with stores of food, the power of natural selection would cease to act in producing modifications of his body, but would continuously advance his mind through the development of its organ, the brain. Hence man may have become truly man—the species, *Homo sapiens*—even in the Miocene period; and while all other mammals were becoming modified

[1] This subject was first discussed in an article in the *Anthropological Review*, May, 1864, and republished in my *Contributions to Natural Selection*, chap. ix, in 1870. [Author's note.]

from age to age under the influence of ever changing physical and biological conditions, he would be advancing mainly in intelligence, but perhaps also in stature, and by that advance alone would be able to maintain himself as the master of all other animals and as the most widespread occupier of the earth. It is quite in accordance with this view that we find the most pronounced distinction between man and the anthropoid apes in the size and complexity of his brain. Thus, Professor Huxley tells us that "it may be doubted whether a healthy human adult brain ever weighed less than 31 or 32 ounces, or that the heaviest gorilla brain has exceeded 20 ounces," although "a full-grown gorilla is probably pretty nearly twice as heavy as a Bosjes man,[1] or as many an European woman."[2] The average human brain, however, weighs 48 or 49 ounces, and if we take the average ape brain at only 2 ounces less than the very largest gorilla's brain, or 18 ounces, we shall see better the enormous increase which has taken place in the brain of man since the time when he branched off from the apes; and this increase will be still greater if we consider that the brains of apes, like those of all other mammals, have also increased from earlier to later geological times.

[1] The Bosjesmans, or Bushmen, are a nomadic people of South Africa.

[2] *Man's Place in Nature,* p. 102. [Author's note.]

If these various considerations are taken into account, we must conclude that the essential features of man's structure as compared with that of apes—his erect posture and free hands—were acquired at a comparatively early period, and were, in fact, the characteristics which gave him his superiority over other mammals, and started him on the line of development which has led to his conquest of the world. But during this long and steady development of brain and intellect, mankind must have continuously increased in numbers and in the area which they occupied—they must have formed what Darwin terms a "dominant race." For had they been few in numbers and confined to a limited area, they could hardly have successfully struggled against the numerous fierce carnivora of that period, and against those adverse influences which led to the extinction of so many more powerful animals. A large population spread over an extensive area is also needed to supply an adequate number of brain variations for man's progressive improvement. But this large population and long-continued development in a single line of advance renders it the more difficult to account for the complete absence of human or prehuman remains in all those deposits which have furnished, in such rich abundance, the remains of other land animals. It is true that the remains of apes are also very rare, and we may well suppose

that the superior intelligence of man led him to avoid that extensive destruction by flood or in morass which seems to have often overwhelmed other animals. Yet, when we consider that even in our own day men are not unfrequently overwhelmed by volcanic eruptions, as in Java and Japan, or carried away in vast numbers by floods, as in Bengal and China, it seems impossible but that ample remains of Miocene and Pliocene man do exist buried in the most recent layers of the earth's crust, and that more extended research or some fortunate discovery will some day bring them to light.

It has usually been considered that the ancestral form of man originated in the tropics, where vegetation is most abundant and the climate most equable. But there are some important objections to this view. The anthropoid apes, as well as most of the monkey tribe, are essentially arboreal in their structure, whereas the great distinctive character of man is his special adaptation to terrestrial locomotion. We can hardly suppose, therefore, that he originated in a forest region, where fruits to be obtained by climbing are the chief vegetable food. It is more probable that he began his existence on the open plains or high plateaus of the temperate or subtropical zone, where the seeds of indigenous cereals and numerous herbivora, rodents, and game birds, with fishes and mollusks in

the lakes, rivers, and seas supplied him with an abundance of varied food. In such a region he would develop skill as a hunter, trapper, or fisherman, and later as a herdsman and cultivator,—a succession of which we find indications in the palæolithic and neolithic races of Europe.

In seeking to determine the particular areas in which his earliest traces are likely to be found, we are restricted to some portion of the Eastern Hemisphere, where alone the anthropoid apes exist, or have apparently ever existed.

There is good reason to believe, also, that Africa must be excluded, because it is known to have been separated from the northern continent in early tertiary times, and to have acquired its existing fauna of the higher mammalia by a later union with that continent after the separation from it of Madagascar, an island which has preserved for us a sample, as it were, of the early African mammalian fauna, from which not only the anthropoid apes, but all the higher quadrumana are absent.[1] There remains only the great Euro-Asiatic continent; and its enormous plateaus, extending from Persia right across Tibet and Siberia to Manchuria, afford an area, some part or other of which probably offered suitable conditions, in late

[1] For a full discussion of this question, see the author's *Geographical Distribution of Animals,* vol. i, p. 285. [Author's note.]

Miocene or early Pliocene times, for the development of ancestral man.

It is in this area that we still find that type of mankind—the Mongolian—which retains a color of the skin midway between the black or brown-black of the negro and the ruddy or olive-white of the Caucasian types, a color which still prevails over all Northern Asia, over the American continents, and over much of Polynesia. From this primary tint arose, under the influence of varied conditions, and probably in correlation with constitutional changes adapted to peculiar climates, the varied tints which still exist among mankind. If the reasoning by which this conclusion is reached be sound, and all the earlier stages of man's development from an animal form occurred in the area now indicated, we can better understand how it is that we have as yet met with no traces of the missing links, or even of man's existence during late tertiary times, because no part of the world is so entirely unexplored by the geologist as this very region. The area in question is sufficiently extensive and varied to admit of primeval man having attained to a considerable population, and having developed his full human characteristics, both physical and mental, before there was any need for him to migrate beyond its limits. One of these earliest important migrations was probably into Africa, where, spreading westward,

he became modified in color and hair in correlation with physiological changes adapting him to the climate of the equatorial lowlands. Spreading northwestward into Europe the moist and cool climate led to a modification of an opposite character, and thus may have arisen the three great human types which still exist. Somewhat later, probably, he spread eastward into Northwest America and soon scattered himself over the whole continent; and all this may well have occurred in early or middle Pliocene times. Thereafter, at very long intervals, successive waves of migration carried him into every part of the habitable world, and by conquest and intermixture led ultimately to that puzzling gradation of types which the ethnologist in vain seeks to unravel.

From the foregoing discussion it will be seen that I fully accept Mr. Darwin's conclusion as to the essential identity of man's bodily structure with that of the higher mammalia, and his descent from some ancestral form common to man and the anthropoid apes. The evidence of such descent appears to me to be overwhelming and conclusive. Again, as to the cause and method of such descent and modification, we may admit, at all events provisionally, that the laws of variation and natural selection, acting through the struggle for existence and the

continual need of more perfect adaptation to the physical and biological environments, may have brought about, first that perfection of bodily structure in which he is so far above all other animals, and in coördination with it the larger and more developed brain, by means of which he has been able to utilize that structure in the more and more complete subjection of the whole animal and vegetable kingdoms to his service.

But this is only the beginning of Mr. Darwin's work, since he goes on to discuss the moral nature and mental faculties of man, and derives these too by gradual modification and development from the lower animals. Although, perhaps, nowhere distinctly formulated, his whole argument tends to the conclusion that man's entire nature and all his faculties, whether moral, intellectual, or spiritual, have been derived from their rudiments in the lower animals, in the same manner and by the action of the same general laws as his physical structure has been derived. As this conclusion appears to me not to be supported by adequate evidence, and to be directly opposed to many well-ascertained facts, I propose to devote a brief space to its discussion.

Mr. Darwin's mode of argument consists in showing that the rudiments of most, if not of all, the mental and moral faculties of man can be de-

tected in some animals. The manifestations of intelligence, amounting in some cases to distinct acts of reasoning, in many animals, are adduced as exhibiting in a much less degree the intelligence and reason of man. Instances of curiosity, imitation, attention, wonder, and memory are given; while examples are also adduced which may be interpreted as proving that animals exhibit kindness to their fellows, or manifest pride, contempt, and shame. Some are said to have the rudiments of language, because they utter several different sounds, each of which has a definite meaning to their fellows or to their young; others the rudiments of arithmetic, because they seem to count and remember up to three, four, or even five. A sense of beauty is imputed to them on account of their own bright colors or the use of colored objects in their nests; while dogs, cats, and horses are said to have imagination, because they appear to be disturbed by dreams. Even some distant approach to the rudiments of religion is said to be found in the deep love and complete submission of a dog to his master.[1]

Turning from animals to man, it is shown that in the lowest savages many of these faculties are very little advanced from the condition in which they appear in the higher animals; while others, al-

[1] For a full discussion of all these points, see *Descent of Man*, chap. iii. [Author's note.]

though fairly well exhibited, are yet greatly inferior to the point of development they have reached in civilized races. In particular, the moral sense is said to have been developed from the social instincts of savages, and to depend mainly on the enduring discomfort produced by any action which excites the general disapproval of the tribe. Thus, every act of an individual which is believed to be contrary to the interests of the tribe, excites its unvarying disapprobation and is held to be immoral; while every act, on the other hand, which is, as a rule, beneficial to the tribe, is warmly and constantly approved, and is thus considered to be right or moral. From the mental struggle, when an act that would benefit self is injurious to the tribe, there arises conscience; and thus the social instincts are the foundation of the moral sense and of the fundamental principles of morality.[1]

The question of the origin and nature of the moral sense and of conscience is far too vast and complex to be discussed here, and a reference to it has been introduced only to complete the sketch of Mr. Darwin's view of the continuity and gradual development of all human faculties from the lower animals up to savages, and from savage up to civilized man. The point to which I wish specially to call attention is, that to prove continuity and the progressive development of the intellectual and

[1] *Descent of Man,* chap. iv. [Author's note.]

moral faculties from animals to man, is not the same as proving that these faculties have been developed by natural selection; and this last is what Mr. Darwin has hardly attempted, although to support his theory it was absolutely essential to prove it. Because man's physical structure has been developed from an animal form by natural selection, it does not necessarily follow that his mental nature, even though developed *pari passu* with it, has been developed by the same causes only.

To illustrate by a physical analogy. Upheaval and depression of land, combined with sub-aërial denudation by wind and frost, rain and rivers, and marine denudation on coast lines, were long thought to account for all the modelling of the earth's surface not directly due to volcanic action; and in the early editions of Lyell's *Principles of Geology* these are the sole causes appealed to. But when the action of glaciers was studied and the recent occurrence of a glacial epoch demonstrated as a fact, many phenomena—such as moraines and other gravel deposits, boulder clay, erratic boulders, grooved and rounded rocks, and Alpine lake basins—were seen to be due to this altogether distinct cause. There was no breach of continuity, no sudden catastrophe; the cold period came on and passed away in the most gradual manner, and its effects often passed insensibly into those produced

by denudation or upheaval; yet none the less a new agency appeared at a definite time, and new effects were produced which, though continuous with preceding effects, were not due to the same causes. It is not, therefore, to be assumed, without proof or against independent evidence, that the later stages of an apparently continuous development are necessarily due to the same causes only as the earlier stages. Applying this argument to the case of man's intellectual and moral nature, I propose to show that certain definite portions of it could not have been developed by variation and natural selection alone, and that, therefore, some other influence, law, or agency is required to account for them. If this can be clearly shown for any one or more of the special faculties of intellectual man, we shall be justified in assuming that the same unknown cause or power may have had a much wider influence, and may have profoundly influenced the whole course of his development.

We have ample evidence that, in all the lower races of man, what may be termed the mathematical faculty is either absent, or, if present, quite unexercised. The Bushmen and the Brazilian Wood-Indians are said not to count beyond two. Many Australian tribes only have words for one and two, which are combined to make three,

four, five, or six, beyond which they do not count. The Damaras of South Africa only count to three; and Mr. Galton gives a curious description of how one of them was hopelessly puzzled when he had sold two sheep for two sticks of tobacco each, and received four sticks in payment. He could only find out that he was correctly paid by taking two sticks and then giving one sheep, then receiving two sticks more and giving the other sheep. Even the comparatively intellectual Zulus can only count up to ten by using the hands and fingers. The Ahts of Northwest America count in nearly the same manner, and most of the tribes of South America are no further advanced.[1] The Kaffirs have great herds of cattle, and if one is lost they miss it immediately, but this is not by counting, but by noticing the absence of one they know; just as in a large family or a school a boy is missed without going through the process of counting. Somewhat higher races, as the Esquimaux, can count up to twenty by using the hands and the feet; and other races get even further than this by saying "one man" for twenty, "two men" for forty, and so on, equivalent to our rural mode of reckoning by scores. From the fact that so many of the existing savage races can only count to four or five, Sir John Lubbock thinks it improbable that

[1] Lubbock's *Origin of Civilization,* fourth edition, pp. 434-440; Tylor's *Primitive Culture,* chap. vii. [Author's note.]

our earliest ancestors could have counted as high as ten.[1]

When we turn to the more civilized races, we find the use of numbers and the art of counting greatly extended. Even the Tongas of the South Sea islands are said to have been able to count as high as 100,000. But mere counting does not imply either the possession or the use of anything that can be really called the mathematical faculty, the exercise of which in any broad sense has only been possible since the introduction of the decimal notation. The Greeks, the Romans, the Egyptians, the Jews, and the Chinese had all such cumbrous systems that anything like a science of arithmetic, beyond very simple operations, was impossible; and the Roman system, by which the year 1888 would be written MDCCCLXXXVIII, was that in common use in Europe down to the fourteenth or fifteenth centuries, and even much later in some places. Algebra, which was invented

[1] It has been recently stated that some of these facts are erroneous, and that some Australians can keep accurate reckoning up to 100, or more, when required. But this does not alter the general fact that many low races, including the Australians, have no words for high numbers and never require to use them. If they are now, with a little practice, able to count much higher, this indicates the possession of a faculty which could not have been developed under the law of utility only, since the absence of words for such high numbers shows that they were neither used nor required. [Author's note.]

by the Hindoos, from whom also came the decimal notation, was not introduced into Europe till the thirteenth century, although the Greeks had some acquaintance with it; and it reached Western Europe from Italy only in the sixteenth century.[1] It was, no doubt, owing to the absence of a sound system of numeration that the mathematical talent of the Greeks was directed chiefly to geometry, in which science Euclid, Archimedes, and others made such brilliant discoveries. It is, however, during the last three centuries only that the civilized world appears to have become conscious of the possession of a marvellous faculty which, when supplied with the necessary tools in the decimal notation, the elements of algebra and geometry, and the power of rapidly communicating discoveries and ideas by the art of printing, has developed to an extent, the full grandeur of which can be appreciated only by those who have devoted some time (even if unsuccessfully) to the study.

The facts now set forth as to the almost total absence of mathematical faculty in savages and its wonderful development in quite recent times are exceedingly suggestive, and in regard to them we are limited to two possible theories. Either prehistoric and savage man did not possess this

[1] Article Arithmetic in *Eng. Cyc. of Arts and Sciences.* [Author's note.]

faculty at all (or only in its merest rudiments), or they did possess it, but had neither the means nor the incitements for its exercise. In the former case we have to ask by what means has this faculty been so rapidly developed in all civilized races, many of which a few centuries back were, in this respect, almost savages themselves; while in the latter case the difficulty is still greater, for we have to assume the existence of a faculty which had never been used either by the supposed possessors of it or by their ancestors.

Let us take, then, the least difficult supposition —that savages possessed only the mere rudiments of the faculty, such as their ability to count, sometimes up to ten, but with an utter inability to perform the very simplest processes of arithmetic or of geometry—and inquire how this rudimentary faculty became rapidly developed into that of a Newton, a La Place, a Gauss, or a Cayley. We will admit that there is every possible gradation between these extremes, and that there has been perfect continuity in the development of the faculty; but we ask, What motive power caused its development?

It must be remembered we are here dealing solely with the capability of the Darwinian theory to account for the origin of the *mind*, as well as it accounts for the origin of the *body* of man, and we must, therefore, recall the essential features of

that theory. These are, the preservation of useful variations in the struggle for life; that no creature can be improved beyond its necessities for the time being; that the law acts by life and death, and by the survival of the fittest. We have to ask, therefore, what relation the successive stages of improvement of the mathematical faculty had to the life or death of its possessors; to the struggles of tribe with tribe, or nation with nation; or to the ultimate survival of one race and the extinction of another. If it cannot possibly have had any such effects, then it cannot have been produced by natural selection.

It is evident that in the struggles of savage man with the elements and with wild beasts, or of tribe with tribe, this faculty can have had no influence. It had nothing to do with the early migrations of man, or with the conquest and extermination of weaker by more powerful peoples. The Greeks did not successfully resist the Persian invaders by any aid from their few mathematicians, but by military training, patriotism, and self-sacrifice. The barbarous conquerors of the East, Timurlane and Gengkhis Khan,[1] did not owe their success to any superiority of intellect or of mathematical faculty in themselves or their followers. Even if the great conquests of the Romans were, in

[1] Timurlane, or Tamerlane (1335-1405), and Gengkhis Khan (1162-1227) were Mongol conquerors.

part, due to their systematic military organization, and to their skill in making roads and encampments, which may, perhaps, be imputed to some exercise of the mathematical faculty, that did not prevent them from being conquered in turn by barbarians, in whom it was almost entirely absent. And if we take the most civilized peoples of the ancient world—the Hindoos, the Arabs, the Greeks, and the Romans, all of whom had some amount of mathematical talent—we find that it is not these, but the descendants of the barbarians of those days—the Celts, the Teutons, and the Slavs—who have proved themselves the fittest to survive in the great struggle of races, although we cannot trace their steadily growing success during past centuries either to the possession of any exceptional mathematical faculty or to its exercise. They have indeed proved themselves, to-day, to be possessed of a marvellous endowment of the mathematical faculty; but their success at home and abroad, as colonists or as conquerors, as individuals or as nations, can in no way be traced to this faculty, since they were almost the last who devoted themselves to its exercise. We conclude, then, that the present gigantic development of the mathematical faculty is wholly unexplained by the theory of natural selection, and must be due to some altogether distinct cause.

These distinctively human faculties follow very closely the lines of the mathematical faculty in their progressive development, and serve to enforce the same argument. Among the lower savages music, as we understand it, hardly exists, though they all delight in rude musical sounds, as of drums, tom-toms, or gongs; and they also sing in monotonous chants. Almost exactly as they advance in general intellect, and in the arts of social life, their appreciation of music appears to rise in proportion; and we find among them rude stringed instruments and whistles, till, in Java, we have regular bands of skilled performers, probably the successors of Hindoo musicians of the age before the Mahometan conquest. The Egyptians are believed to have been the earliest musicians, and from them the Jews and the Greeks, no doubt, derived their knowledge of the art; but it seems to be admitted that neither the latter nor the Romans knew anything of harmony or of the essential features of modern music.[1] Till the fifteenth century little progress appears to have been made in the science or the practice of music; but since that era it has advanced with marvellous rapidity, its progress being curiously parallel with that of mathematics, inasmuch as great musical geniuses appeared suddenly among different na-

[1] See "History of Music," in *Eng. Cyc.*, Science and Arts Division. [Author's note.]

tions, equal in their possession of this special faculty to any that have since arisen.

As with the mathematical, so with the musical faculty, it is impossible to trace any connection between its possession and survival in the struggle for existence. It seems to have arisen as a *result* of social and intellectual advancement, not as a *cause;* and there is some evidence that it is latent in the lower races, since under European training native military bands have been formed in many parts of the world, which have been able to perform creditably the best modern music.

The artistic faculty has run a somewhat different course, though analogous to that of the faculties already discussed. Most savages exhibit some rudiments of it, either in drawing or carving human or animal figures; but, almost without exception, these figures are rude and such as would be executed by the ordinary inartistic child. In fact, modern savages are, in this respect, hardly equal to those prehistoric men who represented the mammoth and the reindeer on pieces of horn or bone. With any advance in the arts of social life, we have a corresponding advance in artistic skill and taste, rising very high in the art of Japan and India, but culminating in the marvellous sculpture of the best period of Grecian history. In the Middle Ages art was chiefly manifested in

ecclesiastical architecture and the illumination of manuscripts, but from the thirteenth to the fifteenth centuries pictorial art revived in Italy and attained to a degree of perfection which has never been surpassed. This revival was followed closely by the schools of Germany, the Netherlands, Spain, France, and England, showing that the true artistic faculty belonged to no one nation, but was fairly distributed among the various European races.

These several developments of the artistic faculty, whether manifested in sculpture, painting, or architecture, are evidently outgrowths of the human intellect which have no immediate influence on the survival of individuals or of tribes, or on the success of nations in their struggles for supremacy or for existence. The glorious art of Greece did not prevent the nation from falling under the sway of the less advanced Roman; while we ourselves, among whom art was the latest to arise, have taken the lead in the colonization of the world, thus proving our mixed race to be the fittest to survive.

The law of Natural Selection or the survival of the fittest is, as its name implies, a rigid law, which acts by the life or death of the individuals submitted to its action. From its very nature it can act only on useful or hurtful characteristics,

eliminating the latter and keeping up the former to a fairly general level of efficiency. Hence it necessarily follows that the characters developed by its means will be present in all the individuals of a species, and, though varying, will not vary very widely from a common standard. The amount of variation we found, in our third chapter, to be about one fifth or one sixth of the mean value—that is, if the mean value were taken at 100, the variations would reach from 80 to 120, or somewhat more, if very large numbers were compared. In accordance with this law we find that all those characters in man which were certianly essential to him during his early stages of development exist in all savages with some approach to equality. In the speed of running, in bodily strength, in skill with weapons, in acuteness of vision, or in power of following a trail, all are fairly proficient, and the differences of endowment do not probably exceed the limits of variation in animals above referred to. So, in animal instinct or intelligence, we find the same general level of development. Every wren makes a fairly good nest like its fellows; every fox has an average amount of the sagacity of its race; while all the higher birds and mammals have the necessary affections and instincts needful for the protection and bringing up of their offspring.

But in those specially developed faculties of

civilized man which we have been considering, the case is very different. They exist only in a small proportion of individuals, while the difference of capacity between these favored individuals and the average of mankind is enormous. Taking first the mathematical faculty, probably fewer than one in a hundred really possess it, the great bulk of the population having no natural ability for the study, or feeling the slightest interest in it.[1] And if we attempt to measure the amount of variation in the faculty itself between a first-class mathematician and the ordinary run of people who find any kind of calculation confusing and altogether devoid of interest, it is probable that the former could not be estimated at less than a hundred times the latter, and perhaps a thousand times would more nearly measure the difference between them.

The artistic faculty appears to agree pretty closely with the mathematical in its frequency. The boys and girls who, going beyond the mere con-

[1] This is the estimate furnished me by two mathematical masters in one of our great public schools of the proportion of boys who have any special taste or capacity for mathematical studies. Many more, of course, can be drilled into a fair knowledge of elementary mathematics, but only this small proportion possess the natural faculty which renders it possible for them ever to rank high as mathematicians, to take any pleasure in it, or to do any original mathematical work. [Author's note.]

ventional designs of children, draw what they *see*, not what they *know* to be the shape of things; who naturally sketch in perspective, because it is thus they see objects; who see, and represent in their sketches, the light and shade as well as the mere outlines of objects; and who can draw recognizable sketches of every one they know, are certainly very few compared with those who are totally incapable of anything of the kind. From some inquiries I have made in schools, and from my own observation, I believe that those who are endowed with this natural artistic talent do not exceed, even if they come up to, one per cent of the whole population.

The variations in the amount of artistic faculty are certainly very great, even if we do not take the extremes. The gradations of power between the ordinary man or woman "who does not draw," and whose attempts at representing any object, animate or inanimate, would be laughable, and the average good artist who, with a few bold strokes, can produce a recognizable and even effective sketch of a landscape, a street, or an animal, are very numerous; and we can hardly measure the difference between them at less than fifty or a hundred fold.

The musical faculty is undoubtedly, in its lower forms, less uncommon than either of the preceding, but it still differs essentially from the necessary

or useful faculties in that it is almost entirely wanting in one half even of civilized men. For every person who draws, as it were instinctively, there are probably five or ten who sing or play without having been taught and from mere innate love and perception of melody and harmony.[1] On the other hand, there are probably about as many who seem absolutely deficient in musical perception, who take little pleasure in it, who cannot perceive discords or remember tunes, and who could not learn to sing or play with any amount of study. The gradations, too, are here quite as great as in mathematics or pictorial art, and the special faculty of the great musical composer must be reckoned many hundreds or perhaps thousands of times greater than that of the ordinary "unmusical" person above referred to.

It appears, then, that, both on account of the limited number of persons gifted with the mathematical, the artistic, or the musical faculty, as well as from the enormous variations in its development, these mental powers differ widely from those which are essential to man, and are, for the most part, common to him and the lower animals; and that they could not, therefore, possibly have

[1] I am informed, however, by a music master in a large school that only about one per cent have real or decided musical talent, corresponding curiously with the estimate of the mathematicians. [Author's note.]

been developed in him by means of the law of natural selection.

We have thus shown, by two distinct lines of argument, that faculties are developed in civilized man which, both in their mode of origin, their function, and their variations, are altogether distinct from those other characters and faculties which are essential to him, and which have been brought to their actual state of efficiency by the necessities of his existence. And besides the three which have been specially referred to, there are others which evidently belong to the same class. Such is the metaphysical faculty, which enables us to form abstract conceptions of a kind the most remote from all practical applications, to discuss the ultimate causes of things, the nature and qualities of matter, motion, and force, of space and time, of cause and effect, of will and conscience. Speculations on these abstract and difficult questions are impossible to savages, who seem to have no mental faculty enabling them to grasp the essential ideas or conceptions; yet whenever any race attains to civilization, and comprises a body of people who, whether as priests or philosophers, are relieved from the necessity of labor or of taking an active part in war or government, the metaphysical faculty appears to spring suddenly into existence, although, like the other faculties

we have referred to, it is always confined to a very limited proportion of the population.

In the same class we may place the peculiar faculty of wit and humor, an altogether natural gift whose development appears to be parallel with that of the other exceptional faculties. Like them, it is almost unknown among savages, but appears more or less frequently as civilization advances and the interests of life become more numerous and more complex. Like them, too, it is altogether removed from utility in the struggle for life, and appears sporadically in a very small percentage of the population; the majority being, as is well known, totally unable to say a witty thing or make a pun even to save their lives.[1]

The facts now set forth prove the existence of a number of mental faculties which either do not exist at all or exist in a very rudimentary condition in savages, but appear almost suddenly and in perfect development in the higher civilized races. These same faculties are further characterized by their sporadic character, being well developed only in a very small proportion of the community; and by the enormous amount of variation in their development, the higher manifestations of them being many times—perhaps a hundred or a thousand times—stronger than the lower. Each of these

[1] A long foot-note by the author is omitted.

characteristics is totally inconsistent with any action of the law of natural selection in the production of the faculties referred to; and the facts, taken in their entirety, compel us to recognize some origin for them wholly distinct from that which has served to account for the animal characteristics—whether bodily or mental—of man.

The special faculties we have been discussing clearly point to the existence in man of something which he has not derived from his animal progenitors—something which we may best refer to as being of a spiritual essence or nature, capable of progressive development under favorable conditions. On the hypothesis of this spiritual nature, superadded to the animal nature of man, we are able to understand much that is otherwise mysterious or unintelligible in regard to him, especially the enormous influence of ideas, principles, and beliefs over his whole life and actions. Thus alone we can understand the constancy of the martyr, the unselfishness of the philanthropist, the devotion of the patriot, the enthusiasm of the artist, and the resolute and persevering search of the scientific worker after nature's secrets. Thus we may perceive that the love of truth, the delight in beauty, the passion for justice, and the thrill of exultation with which we hear of any act of courageous self-sacrifice, are the workings within

us of a higher nature which has not been developed by means of the struggle for material existence.

It will, no doubt, be urged that the admitted continuity of man's progress from the brute does not admit of the introduction of new causes, and that we have no evidence of the sudden change of nature which such introduction would bring about. The fallacy as to new causes involving any breach of continuity, or any sudden or abrupt change in the effects, has already been shown; but we will further point out that there are at least three stages in the development of the organic world when some new cause or power must necessarily have come into action.

The first stage is the change from inorganic to organic, when the earliest vegetable cell, or the living protoplasm out of which it arose, first appeared. This is often imputed to a mere increase of complexity of chemical compounds; but increase of complexity, with consequent instability, even if we admit that it may have produced protoplasm as a chemical compound, could certainly not have produced *living* protoplasm—protoplasm which has the power of growth and of reproduction, and of that continuous process of development which has resulted in the marvellous variety and complex organization of the whole vegetable kingdom. There is in all this something quite beyond and apart from chemical

changes, however complex; and it has been well said that the first vegetable cell was a new thing in the world, possessing altogether new powers—that of extracting and fixing carbon from the carbon dioxide of the atmosphere, that of indefinite reproduction, and, still more marvellous, the power of variation and of reproducing those variations, till endless complications of structure and varieties of form have been the result. Here, then, we have indications of a new power at work, which we may term *vitality*, since it gives to certain forms of matter all those characters and properties which constitute Life.

The next stage is still more marvellous, still more completely beyond all possibility of explanation by matter, its laws and forces. It is the introduction of sensation or consciousness, constituting the fundamental distinction between the animal and vegetable kingdoms. Here all idea of mere complication of structure producing the result is out of the question. We feel it to be altogether preposterous to assume that at a certain stage of complexity of atomic constitution, and as a necessary result of that complexity alone, an *ego* should start into existence, a thing that *feels*, that is *conscious* of its own existence. Here we have the certainty that something new has arisen, a being whose nascent consciousness has gone on increasing in power and definiteness till it has

culminated in the higher animals. No verbal explanation or attempt at explanation—such as the statment that life is the result of the molecular forces of the protoplasm, or that the whole existing organic universe from the amœba up to man was latent in the fire-mist from which the solar system was developed—can afford any mental satisfaction, or help us in any way to a solution of the mystery.

The third stage is, as we have seen, the existence in man of a number of his most characteristic and noblest faculties, those which raise him furthest above the brutes and open up possibilities of almost indefinite advancement. These faculties could not possibly have been developed by means of the same laws which have determined the progressive development of the organic world in general, and also of man's physical organism.[1]

These three distinct stages of progress from the inorganic world of matter and motion up to man, point clearly to an unseen universe—to a world of spirit, to which the world of matter is altogether subordinate. To this spiritual world we may refer the marvellously complex forces which we know as gravitation, cohesion, chemical force,

[1] For an earlier discussion of this subject, with some wider applications, see the author's *Contributions to the Theory of Natural Selection,* chap. x. [Author's note.]

radiant force, and electricity, without which the material universe could not exist for a moment in its present form, and perhaps not at all, since without these forces, and perhaps others which may be termed atomic, it is doubtful whether matter itself could have any existence. And still more surely can we refer to it those progressive manifestations of Life in the vegetable, the animal, and man—which we may classify as unconscious, conscious, and intellectual life,—and which probably depend upon different degrees of spiritual influx. I have already shown that this involves no necessary infraction of the law of continuity in physical or mental evolution; whence it follows that any difficulty we may find in discriminating the inorganic from the organic, the lower vegetable from the lower animal organisms, or the higher animals from the lowest types of man, has no bearing at all upon the question. This is to be decided by showing that a change in essential nature (due, probably, to causes of a higher order than those of the material universe) took place at the several stages of progress which I have indicated; a change which may be none the less real because absolutely imperceptible at its point of origin, as is the change that takes place in the curve in which a body is moving when the application of some new force causes the curve to be slightly altered.

Those who admit my interpretation of the evidence now adduced—strictly scientific evidence in its appeal to facts which are clearly what ought *not* to be on the materialistic theory—will be able to accept the spiritual nature of man, as not in any way inconsistent with the theory of evolution, but as dependent on those fundamental laws and causes which furnish the very materials for evolution to work with. They will also be relieved from the crushing mental burden imposed upon those who—maintaining that we, in common with the rest of nature, are but products of the blind eternal forces of the universe, and believing also that the time must come when the sun will lose his heat and all life on earth necessarily cease—have to contemplate a not very distant future in which all this glorious earth—which for untold millions of years has been slowly developing forms of life and beauty to culminate at last in man—shall be as if it had never existed; who are compelled to suppose that all the slow growths of our race struggling towards a higher life, all the agony of martyrs, all the groans of victims, all the evil and misery and undeserved suffering of the ages, all the struggles for freedom, all the efforts towards justice, all the aspirations for virtue and the well-being of humanity, shall absolutely vanish, and "like the baseless fabric of a vision, leave not a wrack behind."

As contrasted with this hopeless and soul-deadening belief, we, who accept the existence of a spiritual world, can look upon the universe as a grand consistent whole adapted in all its parts to the development of spiritual beings capable of indefinite life and perfectibility. To us, the whole purpose, the only *raison d'être* of the world—with all its complexities of physical structure, with its grand geological progress, the slow evolution of the vegetable and animal kingdoms, and the ultimate appearance of man—was the development of the human spirit in association with the human body. From the fact that the spirit of man—the man himself—*is* so developed, we may well believe that this is the only, or at least the best way for its development; and we may even see in what is usually termed "evil" on the earth, one of the most efficient means of its growth. For we know that the noblest faculties of man are strengthened and perfected by struggle and effort; it is by unceasing warfare against physical evils and in the midst of difficulty and danger that energy, courage, self-reliance, and industry have become the common qualities of the northern races; it is by the battle with moral evil in all its hydraheaded forms, that the still nobler qualities of justice and mercy and humanity and self-sacrifice have been steadily increasing in the world. Beings thus trained and strengthened by their

surroundings, and possessing latent faculties capable of such noble development, are surely destined for a higher and more permanent existence; and we may confidently believe with our greatest living poet—

> That life is not as idle ore,
>
> But iron dug from central gloom,
> And heated hot with burning fears,
> And dipt in baths of hissing tears,
> And batter'd with the shocks of doom
>
> To shape and use.[1]

We thus find that the Darwinian theory, even when carried out to its extreme logical conclusion, not only does not oppose, but lends a decided support to, a belief in the spiritual nature of man. It shows us how man's body may have been developed from that of a lower animal form under the law of natural selection; but it also teaches us that we possess intellectual and moral faculties which could not have been so developed, but must have had another origin; and for this origin we can only find an adequate cause in the unseen universe of Spirit.

[1] Tennyson's *In Memoriam.*

THE RELIGION OF HUMANITY[1]

ARTHUR JAMES BALFOUR

The word Positivism, as used by us to-day, I understand to carry with it no special reference to the peculiarities of Comte's system, to his views on the historic evolution of thought, to his classification of the sciences, to his theories of sociology, or to those curious schemes of polity and ritual contained in his later writings, which have tried the fidelity of his disciples and the gravity of his critics. I rather suppose the word to be used in a wider sense. I take it to mean that general habit or scheme of thought which, on its negative side, refuses all belief in anything beyond phenomena and the laws connecting them, and on its positive side attempts to find in the "worship of humanity," or, as some more soberly phrase it, in the "service of man," a form of religion unpolluted by any element of the supernatural.

Now I do not propose here to discuss the negative side of this creed. Those who confidently as-

[1] An address delivered at the Church Congress, Manchester, October, 1888. Reprinted, with the generous permission of the author, from *Essays and Addresses,* 1893.

sert, as do the Positivists, that there is one set of things which we can know and do know, and another set of things which we do not know and can never know, evidently suppose themselves to be in possession of some valid criterion of knowledge. How far this supposition is in their case legitimate, I have endeavored elsewhere to discuss from my own point of view, in a book the title of which has attracted more interest than the contents. I do not mean to refer to the subject here. What I have now to say relates solely to what may be called the religious element in Positivism, and its adequacy to meet the highest needs of beings such as we are, placed in a world such as ours.

Some will deny at the outset that the term religion can ever be appropriately used of a creed which has nothing in it of the supernatural. It is a question of words, and, like all questions of words, a question of convenience. In my judgment the convenience varies in this case with the kind of investigation in which we happen to be engaged. If we are considering religions from their dogmatic side, as systems of belief, to be distinguished as such both from ethics and from science, no doubt it would be absurd to describe Positivism, which allows no beliefs except such as are either scientific or ethical, as having any religious element at all. So considered it is a negation of all religion. But if, on the other hand,

we are considering religion not merely from the outside, as a system of propositions, stating what can be known of man's relations to a supernatural power, and the rules of conduct to be framed thereon, but from the inside, as consisting of acts of belief penetrated with religious emotion, then I think it would be unfair to deny that some such emotion may centre round the object of Positivist cult, and that if it does so, it is inconvenient to refuse to describe it as a religion.

It is doubtless unnecessary for me to dwell upon this double aspect of every religion, and of every system of belief which aspires to be a substitute for religion. For many purposes it may be enough to regard religion as a mere collection of doctrines and precepts. It is often enough when we are dealing with its history, or its development; with the criticism of documents or the evidence of dogmas. But when we are dealing not merely with the evolution of religion or its truth, but with its function among us men here and now, we are at least as much concerned with the living emotions of the religious consciousness as with the framework of doctrine, on which, no doubt, they ultimately depend for their consistency and permanence.

Now, as it is certain that there may be supernaturalism without religious feeling, so we need not deny that there may be something of the na-

ture of religious feeling without supernaturalism. The Deists of the last century accepted the argument from design. The existence of the world showed in their view that there must have been a First Cause. The character of the world showed that this First Cause was intelligent and benevolent. They thus provided themselves with the dogmatic basis of a religion, which, however inadequate, nevertheless has been and still is a real religion to vast numbers of men. But to the thinkers of whom I speak this theory was never more than a speculative belief. The chain of cause and effect required a beginning, and their theory of a First Cause provided one. The idea of an infinitely complex but orderly universe appeared by itself to be unsatisfactory, if not unintelligible, so they rounded it off with a God. Yet, while the savage who adores a stone, for no better reason than that it has an odd shape, possesses a religion, though a wretched and degraded one, the Deists of whom I speak had nothing more than a theology, though of a kind only possible in a comparatively advanced community.

While there may thus be a speculative belief in the supernatural, which through the absence of religious feeling does not in the full sense of the word amount to a religion, there may be religious feeling divorced from any belief in the supernatural. It is indeed obvious that such feeling

must be limited. To the variety and compass of the full religious consciousness it can, from the very nature of the case, never attain. The spectacle of the Starry Heavens may inspire admiration and awe, but cannot be said, except by way of metaphor, to inspire love and devotion. Humanity may inspire love and devotion, but does not, in ordinarily-constituted minds, inspire either admiration or awe. If we wish to find these and other religious feelings concentrated on one object, transfusing and vivifying the bare precepts of morality, the combining power must be sought for in the doctrines of Supernatural Religion.

It might be said, in reply, that while some of the feelings associated with a supernatural theology are doubtless absent from the "religion of humanity," these have purpose and significance chiefly in relation to the doctrine of a future life, and to those persons, therefore, who see no ground for believing in the possibility of any such life, seem necessarily meaningless or mischievous. Here, then, is the point where I desire to join issue. The belief in a future state is one of the most striking—I will not say the most important—differences between positive and supernatural religion. It is one upon which no agreement or compromise is possible. It admits of no gradations—of no less or more. It is true, or it is false. And my purpose is to contribute one or two ob-

servations towards a *qualitative* estimate of the immediate gain or loss to some of the highest interests of mankind, which would follow upon a substitution of the Positivist for the Christian theory on the subject.

I say a qualitative estimate, because it is not easy to argue about a quantitative estimate in default of a kind of experience in which we are at present wholly deficient. The religion of humanity, divorced from any other religion, is professed by but a small and, in many respects, a peculiar sect. The cultivation of emotions at high tension towards humanity, deliberately dissociated from the cultivation of religious feeling towards God, has never yet been practised on a large scale. We have so far had only laboratory experiments. There has been no attempt to manufacture in bulk. And even if it had been otherwise, the conclusion to be drawn must for a long time have remained doubtful. For the success of such attempts greatly depends on the character of the social medium in which they are carried on; and if, as I should hope, the existing social medium is favorable to the growth of philanthropic feelings, its character is largely due to the action of Christianity. It remains to be proved whether, if Christianity were destroyed, a " religion of humanity " could long maintain for itself the atmosphere in which alone it could permanently flourish.

I make no attempt, then, to estimate the magnitude of the gain or loss which the destruction of a belief in Providence and a future life would entail upon mankind. I merely endeavor to characterize one or two of the elements of which that gain or loss would be composed.

But in doing so I do not propose to count, or at least to consider, the feelings of satisfaction, or the reverse, with which, according to their temper or their creed, individuals may contemplate their personal destiny after death. My present business is with thoughts and emotions of a wider reference, and among these I count the effect which the belief that physical dissolution is not the destruction of consciousness, that death lets down the curtain at the end of the act, not at the end of the piece, has upon the mood in which we survey the darker aspects of the world in which we live.

I. To say that the doctrine of Immortality provides us with a ready-made solution of the problem of evil, is of course absurd. If there be a problem, it is insoluble. Nevertheless there can be no doubt that it may profoundly modify the whole attitude of mind in which we are able to face the insistent facts of sin, suffering, and misery. I am no pessimist. I do not profess to weigh against one another the sorrows and the joys of humanity, and to conclude that it had

been better for us had we never been born. Let any one try to perform such a calculation in his own case (about which he may be presumed to have exceptional sources of information); let him, in the same spirit of unimpassioned inquiry in which he would carry on any other piece of scientific measurement, attempt to estimate how much of his life has been above and how much below that neutral line which represents the precise degree of well-being at which existence is neither a blessing nor a curse, and he will henceforth treat with derision all attempts to perform the same operation for the human race.

But though this be so, yet the sense of misery unrelieved, of wrongs unredressed, of griefs beyond remedy, of failure without hope, of physical pain so acute that it seems the one overmastering reality in a world of shadows, of mental depression so deadly that it welcomes physical pain itself as a relief—these, and all the crookednesses and injustices of a crooked and unjust world, may well overload our spirits and shatter the springs of our energies, if to this world only we must restrict our gaze. For thus narrowed the problem is hopeless. Let us dream what dreams we please about the future; let us paint it in hues of our own choosing; let us fashion for ourselves a world in which war has been abolished, disease mitigated, poverty rooted out; in which justice and charity

determine every relation in life, and we shall still leave untouched a residue of irremediable ills—separation, decay, weariness, death. This distant and doubtful millennium has its dark shadows: and then how distant and doubtful it is! The most intrepid prophet dare hardly say with assurance whether the gorgeous mountain shapes to which we are drifting be cloud or solid earth. And while the future happiness is doubtful, the present misery is certain. Nothing that humanity can enjoy in the future will make up for what it has suffered in the past; for those who will enjoy are not the same as those who have suffered: one set of persons is injured, another set will receive compensation.

Now I do not wish to be guilty of any exaggeration. It may freely be conceded that many persons exist to whom the knowledge that there are wrongs to be remedied is a stimulus to remedying them, and is nothing more; who can abstract their minds from everything but the work in hand, and remain, like an experienced doctor, wholly undisturbed by the sufferings of those whom they are endeavoring to relieve. But I am not sure that this class is common, or is getting commoner. The sensitiveness to social evils is increasing, and it is good that it should increase. But the good is not unmixed. In proportion as the general sympathy gets wider, as the social imagination

gets more comprehensive and more responsive, so will the number of those increase who according to their temper either rush frantically to the first quack remedy that presents itself, or, too clear-sighted to be sanguine, but not callous enough to be indifferent, yield themselves bondsmen to a skeptical despair. For the first of these classes I know not that anything can be done. There is no cure for stupidity. But for the second, the faith that what we see is but part, and a small part, of a general scheme which will complete the destiny, not merely of humanity, but (which is a very different thing) of every man, woman, and child born into the world, has supplied, and may again supply, consolation and encouragement, energy and hope.

II. It is true that we are sometimes told that a system by which rewards and punishments are annexed in another world, to the practice of virtue or of vice in this one, appeals to the baser side of human nature. And comparisons are drawn between religions which appeal to such sanctions, and religions which do not, entirely to the disadvantage of the former. But this opinion, which lends itself naturally to much easy rhetorical treatment, is open to more than one objection. In the first place, it mistakes the position which the doctrine of future retribution holds in Christian theology, a position which, though real and important, is

nevertheless a subordinate one in the hierarchy of religious motives. On this I do not further dwell, since it obviously falls beyond the limit of my present subject. But in the second place, it seems altogether to mistake the true position of rational self-love in any sound scheme of practical morality.

Conceive for one moment what an indefinitely better and happier world it would be if every action in it were directed by a reasonable desire for the agent's happiness! Excess of all kinds, drunkenness and its attendant ills, would vanish; disease would be enormously mitigated; nine-tenths of the petty vexations which embitter domestic life would be smoothed away; the competition for wealth would be lessened, for wealth would be rated at no more than the quantity of pleasure which it is capable of purchasing for its possessor; the sympathetic emotions would be sedulously cultivated, as among those least subject to weariness and satiety; while self-sacrifice itself would be practised as the last refinement of a judicious luxury.

Now, love of self thus understood, we should be right in ranking infinitely lower among springs of action than the love of God or the love of man. But we should assuredly be utterly wrong in confounding it with self-indulgence, of which it is usually the precise opposite, or in describing it as in any respect base and degraded. The world

suffers not because it has too much of it, but because it has too little; not because it displaces higher motives, but because it is itself habitually displaced by lower ones. But though this be so, yet it must sometimes happen, however rarely, that rational love of self conflicts with the disinterested love of man, if results in this world alone be taken into account. It is only if we are permitted to assume another phase of existence in direct moral relation with this one, that the contradiction between these guiding principles of conduct can be solved certainly and universally in a higher harmony.

It is true that hopes are held out to us that a judicious manipulation of the latent forces of public opinion may supply us with a very efficient substitute for Heaven and Hell, and may provide a method by which any action disagreeable to the community shall be made so intolerable to its perpetrator, that a perfect accord will be produced between individual and public interests. Now I am far indeed from asserting that this scheme (which oddly enough meets with especial favor from those who find something unworthy of the highest morality in the ordinary doctrine of future retribution) is wholly chimerical. The effect which the opinion of his habitual associates has upon the ordinary man, who is neither a hero nor a scoundrel, is almost limitless: and though I do

not know that their approval has been able as yet to give its object a foretaste of Heaven, their disapproval may, without doubt, be so organized as to supply its victim with a very sufficient anticipation of Hell. But is this a power which any sober man desires to see indefinitely increased and placed in irresponsible hands? Is there the slightest possibility that its operation would be limited to questions of morals? Would it not inevitably tresspass upon individual freedom in neutral matters? Would it not crush out every germ of that "tendency to variation" which is the very basis of development? and can we seriously regard it as an improvement in the scheme of the universe that Infinite Justice and Infinite Mercy should be dethroned for the purpose of putting in their place an apotheosized Mrs. Grundy?

Dismissing, then, this substitute for future retribution as a remedy more dangerous than the disease, let us take stock of the position in which practical morality is left by the abolition of a future life. I have sketched for you what the world might be if it were governed solely by reasonable self-love; and a comparison between this picture and the reality should satisfy any one how feeble a motive self-love is compared with the work which it has to perform. In this lies the explanation of a fact which, strangely enough, has been used as an argument to show the worthlessness of Chris-

tianity as an instrument for moralizing the world. How comes it, say these objectors, that in the ages when (as they read history) the sufferings and joys of eternity were present with special vividness to the mind of Christendom, more effect was not produced upon the lives of men; that licentiousness and devotion so often went hand in hand; that the terrors of Hell and the hopes of Heaven were powerless to stay the hand of violence and oppression? The answer is, that then, as now, the conviction that happiness lies along one road and misery along another, is seldom adequate to determine the path of the traveler. He will choose the wrong way, knowing it to be the wrong way, and well assured in his moments of reflection that he is doing not merely what he knows to be wicked, but what he knows to be inexpedient. Surely, however, this is not only conformable to the facts of human nature, but to the doctrines of Christianity. If the practice of the noblest conduct is a fruit that can spring from the enlightened desire for happiness, then have theologians in all ages been notably mistaken. But it is not so. However closely in theory the actions prescribed by self-love may agree with those prescribed by benevolence, no man has ever succeeded in performing them from the former motive alone. No conviction, for instance, that unselfishness " pays " has ever made any man habitually and success-

fully unselfish. To promote the happiness of others solely as a means to our own, may be, and is, a perfectly logical and reasonable policy, but it is not a policy which human beings are capable of pursuing: and, as experience shows that the love of self must be barren unless merged in the love of others, so does the Church teach that rarely can this love of others be found in its highest perfection unless associated with the love of God. These three great principles—great, but not co-equal, distinct in themselves, harmonious in the actions they prescribe, gaining strength from a combination often so intimate as to defy analysis—are yet, even in combination, insufficient to control the inordinate ambitions, desires, and passions over which they are *de jure*,[1] but seldom *de facto*,[2] the unquestioned rulers. How, then, are they dealt with by the Positivist creed? The love of self is directly weakened as a motive to virtue by the abolition of supernatural sanctions in another life. The love of others is indirectly weakened by the possibility of conflict between it and the love of self. The love of God is summarily suppressed. Surely those who can contemplate this result with equanimity must either be very indifferent to the triumph of morality, very ignorant of human nature, or very sanguine about the issues of the struggle between the opposing forces of good and evil.

[1] By law. [2] In fact.

III. In considering, however, the effect of any creed on human actions, it is a great though a common error to limit our view to the bare substance of the morality it advocates, or to the direct method by which moral action is to be produced. Scarcely less important is the manner in which it presents the results of human effort to the imagination of men. The question, Is life worth living? when it is not a mere exclamation of weariness and satiety, means, or should mean, Is there any object worth striving for, not merely as a matter of duty, but for its intrinsic greatness? Can we look at the labors of man from any point of view which shall satisfy, not the conscience merely, but also the imagination? For if not, if the best we can say of life is that, though somewhat lacking in meaning, yet where circumstances are propitious, it is not otherwise than agreeable, then assuredly in our moments of reflection it would not seem worth living; and the more we contemplate it as a whole, the more we raise ourselves above the distractions of the passing moment, the less worth living will it seem.

This, I apprehend, would not be denied by any Positivist, but he would claim for his creed that it had an ideal object, vast enough to absorb the whole energies of mankind, and splendid enough to satisfy its highest aspirations. In the work of building up a per-

fected humanity, every one may bear a part. None indeed can do much, yet all may do something. During his brief journey from nothingness to nothingness, each man may add his pebble to the slowly-rising foundations of an ideal world, content to pass into eternal darkness if he has hastened by a moment the advent of the golden age which, though he will not live to see it, yet must surely come.

Though personally I prefer a system under which we may share the millennium to which we are invited to contribute, I should be the last to deny that conduct thus inspired has much in it that appeals to the highest imagination. But though the ideal is grand, is it also "positive"? I have never been able to discover that there is any foundation in the known laws of nature for these flattering anticipations, or for any confident expectation that if perfection be attainable we are in the right way to attain it. Consider for a moment the complexity of human affairs: our ignorance of the laws which govern the growth of societies; the utter inadequacy of any power of calculation that we possess to apply with confidence our knowledge of those laws (such as it is) to the guidance of the contending forces by which the social organization is moved. The man who would sacrifice the good of the next generation for the greater good of the generation next but one is a

fool. He neglects an age of which he may know a little, for the sake of an age respecting which he can know nothing. He might, if he pleased, stumble along in the twilight; he prefers to adventure himself in the blackness of utter night. Yet what is a generation in the history of man? Nothing. And we, who cannot be sure whether our efforts will benefit or injure our grandchildren, are quietly to assume that we are in the way to contribute to the fortunes of the remotest representatives of the human race.

It will perhaps be said that if we do our best, all these things shall be added unto us; and that, without conscious contrivance on our part we shall be gently led towards the final consummation by that modern Providence, the principle of Evolution. But I have never been fortunate enough to persuade myself that evolution, in so far as it is a scientific doctrine, promises all or any of these good things. I am aware that occasionally evolutionists also find themselves among the prophets; and I take it that some of these anticipations are conceived in the spirit of prophecy rather than in that of natural philosophy. But what guidance in this matter is actually given us by science? We are taught that the successive developments of species have not been along one main channel, but in countless branching streams, like those that intersect the delta of some great river. We also

know that at some point or other on the way towards the development of a higher intelligence all these streams but one have been checked. The progenitors of man, and they alone, would seem to have hit off the precise line of flow, which could produce an Aristotle or a Newton. But because man, more fortunate than his cousins, has got thus far, is his future progress to be indefinite? If he differs from the animals only in degree, will not his fate only differ from theirs in degree also? He too will reach a point, if he has not reached it already, beyond which no variation will bring with it increased intellectual grasp, increased vigor of imagination, increased moralization of will, increased capacity for social life. Nor does it seem to me that the study of history leads us to more encouraging results. There, too, progress has not been along one line of descent. Races and nations have in turn taken up the burden of advancing civilization, borne it for a certain space, found it too heavy for them, and have laid it wearily down. Many peoples have degenerated, many have become stationary, and I am wholly at a loss to know why we—the group of Western nations—and we alone, may hope to escape the common destiny of man.

If we, then, regard the Universe in which we have to live as a mere web of connected phenomena,

created for no object, informed by no purpose, stamped with no marks of design other than those which can be imitated by Natural Selection, I see no ground for the faith that all honest effort will work together for the production of a regenerate man and a perfected society. Such a conclusion cannot be drawn from the notion of God, for by hypothesis there is no God. It cannot be drawn from any general survey of the plan on which the world is framed, or of the end for which it is constructed; for the world is framed on no plan, nor is it constructed to carry out any end. It cannot be drawn from a consideration of the histories of individual species or nations, for the inference to be drawn from these is that Nature has set bounds beyond which no alteration brings with it any sensible improvement. It cannot be deduced from what we know of man, for we have no knowledge of man more certain than that he is powerless consciously to bend towards the attainment of any remote ideal, forces whose interaction he is powerless to calculate or to comprehend. To me, therefore, it seems that the "positive" view of the world must needs end in a chilling skepticism concerning the final worth of human effort, which can hardly fail to freeze and paralyze the warmest enthusiasm and the most zealous energy.

IV. But I do not think that its effects in starving what I may perhaps be allowed to call the

"moral imagination" end here. There are some who hold that the wider range of vision given to us by history and science has diminished the credibility of a religion which comparative theology tells us is only one among thousands that have flourished on a planet of which astronomy tells us that it is only one among indefinite millions scattered through limitless space. For my own part, the conclusion I draw from these undoubted facts is precisely the opposite one. Comte was, I think, well advised when, in his later writings, he discouraged research into matters remote from obvious human interest, on the ground that such research is inimical to the progress of the Positive faith. Not Christianity, but Positivism, shrinks and pales in the light of increasing knowledge. For, while the Positive faith professes to base itself upon science, its emotions centre in humanity, and we are therefore treated to the singular spectacle of a religion in which each great advance in the doctrines which support it dwarfs still further the dignity of the object for which it exists. For what is man, considered merely as a natural object among other natural objects? Time was when the fortunes of his tribe were enough to exhaust the energies and to bound the imagination of the primitive sage. The gods' peculiar care, the central object of an attendant universe, that for which the sun shone and the dew fell, to which

the stars in their courses ministered; it drew its origin in the past from divine ancestors, and might by divine favor be destined to an indefinite existence of success and triumph in the future.

These ideas represent no early stage in human thought, but we have left them far behind. The family, the tribe, the nation, are no longer enough to absorb our interests. Man, past, present, and future, lays claim to our devotion. What, then, can we say of him?

Man, so far as mental science by itself is able to teach us, is no longer the final cause of the universe, the heaven-descended heir of all the ages. His very existence is an accident, his story a brief and discreditable episode in the life of one of the meanest of the planets. Of the combination of causes which first converted a piece or pieces of unorganized jelly into the living progenitors of humanity, science indeed, as yet, knows nothing. It is enough that from such beginnings Famine, Disease, and Mutual Slaughter, fit nurses of the future lord of creation, have gradually evolved, after infinite travail, a race with conscience enough to know that it is vile, and intelligence enough to know that it is insignificant. We survey the past and see that its history is of blood and tears, of helpless blundering, of wild revolt, of stupid acquiescence, of empty aspirations. We sound the future, and learn that after a period, long com-

pared with the individual life, but short indeed compared with the divisions of time open to our investigation, the energies of our system will decay, the glory of the sun will be dimmed, and the earth, tideless and inert, will no longer tolerate the race which has for a moment disturbed its solitude. Man will go down into the pit, and all his thoughts will perish. The uneasy consciousness, which in this obscure corner has for a brief space broken the contented silence of the Universe, will be at rest. Matter will know itself no longer. Imperishable monuments and immortal deeds, death itself, and love stronger than death, will be as though they had never been. Nor will anything that remains be better or be worse for all that the labor, genius, devotion, and suffering of man have striven through countless generations to effect.

Now this Positivist eschatology, like any other eschatology, need, of course, have little obvious or direct bearing on the great mass of ordinary everyday interests and emotions. It need not overshadow every thought and action of him who accepts it, any more than the knowledge that death must come some time, and may come soon, thrusts itself obtrusively into the business and enjoyment of the average man. But this does not mean that its influence can be disregarded. One of the objects of the "religion of humanity," and it is an object beyond all praise, is to stimulate the

imagination till it lovingly embraces the remotest fortunes of the whole human family. But in proportion as this end is successfully attained, in proportion as we are taught by this or any other religion to neglect the transient and the personal, and to count ourselves as laborers for that which is universal and abiding, so surely must the increasing range which science is giving to our vision over the times and spaces of the material universe, and the decreasing importance of the place which man is seen to occupy in it, strike coldly on our moral imagination, if so be that the material universe is all we have to do with. It is no answer to say that scientific discovery cannot alter the moral law, and that so long as the moral law is unchanged our conduct need be modified by no opinions as to the future destiny of this planet or its inhabitants. This contention, whether true or not, is irrelevant. All developed religions, and all philosophies which aspire to take the place of religion, Lucretius as well as St. Paul, give us some theory as to the destiny of man and his relation to the sum of things. My contention is that every such religion and every such philosophy, so long as it insists on regarding man as merely a phenomenon among phenomena, a natural object among other natural objects, is condemned by science to failure as an effective stimulus to high endeavor. Love, pity, and endurance it may indeed

leave with us: and this is well. But it so dwarfs and impoverishes the ideal end of human effort, that though it may encourage us to die with dignity, it hardly permits us to live with hope.

I have now endeavored briefly to indicate certain salient points in which, as I think, Positivism must, even within the limits of mundane experience, prove inferior as a moralizing agent to Christianity. Of the inmost essence of Christianity, of the doctrines dealing with the personal relations between God and man, in which it differs not merely from Positivism, but from all other forms of religion, I have said little. For Positivism, not Christianity, is my subject, and over this region of religious consciousness Positivism claims no sway. I have contented myself with inquiring which of these two is in truth the better "religion of humanity"; which is the religion most fitted, in the face of advancing knowledge, to concentrate in the service of man those high emotions and far-reaching hopes from which the moral law, as a practical system, draws nourishment and strength. That such a method of treatment is essentially incomplete is of course obvious. It arbitrarily isolates, and exclusively deals with, but a small fraction of the question at issue between supernaturalism and naturalism. It leaves out of account the greatest question of all—namely, the question of comparative proof, and directs atten-

tion only to the less august problem of comparative advantage. Such a limitation of treatment would in any case be imposed by the character of the occasion, but I am not sure that it is not intrinsically useful. A philosophy of belief, I do not mean of religious belief, exclusively or even principally, but of all belief, has yet to be constructed. I do not know that its foundations are yet laid; nor are they likely to be laid by Positivist thinkers, on whose minds it does not for the most part seem yet to have dawned that such a philosophy is in any way required. Until some progress is made in this work I must adhere to an opinion which I have elsewhere defended, that much current controversy about the possibility of miracles, about the evidence for design, about what is commonly, though very absurdly, described as the "conflict between science and religion," can at best be only provisional. But when the time comes at which mankind shall have attained some coherent method of testing the validity of those opinions respecting the natural and the spiritual worlds on which in their best moments they desire to act, then I hazard the guess, since to guesses we are at present confined, that adaptation to the moral wants and aspirations of humanity will not be regarded as wholly alien to the problems over which so many earnest minds are at present disquieting themselves in vain.

But even apart from the question of relative proof, it may be said that the comparison between Christianity and Positivism has been very incompletely worked out. This is true, but let it be noted that the incompleteness of treatment is unfavorable, not to Positivism, but to Christianity. We have compared Positivism where it is thought to be strongest, with Christianity where it is thought to be weakest. And if the result of the comparison even there has been unfavorable to Positivism, how will the account stand if every element in Christianity be taken into consideration? The "religion of humanity" seems specially fitted to meet the tastes of that comparatively small and prosperous class, who are unwilling to leave the dry bones of Agnosticism wholly unclothed with any living tissue of religious emotion, and who are at the same time fortunate enough to be able to persuade themselves that they are contributing, or may contribute, by their individual efforts to the attainment of some great ideal for mankind. But what has it to say to the more obscure multitude who are absorbed, and wellnigh overwhelmed, in the constant struggle with daily needs and narrow cares; who have but little leisure or inclination to consider the precise rôle they are called on to play in the great drama of "humanity," and who might in any case be puzzled to discover its interest or its impor-

tance? Can it assure them that there is no human being so insignificant as not to be of infinite worth in the eyes of Him who created the Heavens, or so feeble but that his action may have consequence of infinite moment long after this material system shall have crumbled into nothingness? Does it offer consolation to those who are in grief, hope to those who are bereaved, strength to the weak, forgiveness to the sinful, rest to those who are weary and heavy laden? If not, then whatever be its merits, it is no rival to Christianity. It cannot penetrate and vivify the inmost life of ordinary humanity. There is in it no nourishment for ordinary human souls, no comfort for ordinary human sorrow, no help for ordinary human weakness. Not less than the crudest irreligion does it leave us men divorced from all communion with God, face to face with the unthinking energies of nature which gave us birth, and into which, if supernatural religion be indeed a dream, we must after a few fruitless struggles be again resolved.

THE PROVINCES OF THE SEVERAL ARTS[1]

JOHN ADDINGTON SYMONDS

I

"Art," said Goethe, "is but form-giving." We might vary this definition, and say, "Art is a method of expression or presentation." Then comes the question: If art gives form, if it is a method of expression or presentation, to what does it give form, what does it express or present? The answer certainly must be: Art gives form to human consciousness; expresses or presents the feeling or the thought of man. Whatever else art may do by the way, in the communication of innocent pleasures, in the adornment of life and the softening of manners, in the creation of beautiful shapes and sounds, this, at all events, is its prime function.

While investing thought and sentiment, the spiritual subject-matter of all art, with form, or finding for it proper modes of presentation, each of the arts employs a special medium, obeying the

[1] From *Essays: Speculative and Suggestive,* London, Chapman & Hall, 1890.

laws of beauty proper to that medium. The vehicles of the arts, roughly speaking, are solid substances (like ivory, stone, wood, metal), pigments, sounds, and words. The masterly handling of these vehicles and the realization of their characteristic types of beauty have come to be regarded as the craftsman's paramount concern. And in a certain sense this is a right conclusion; for dexterity in the manipulation of the chosen vehicle and power to create a beautiful object, distinguish the successful artist from the man who may have had like thoughts and feelings. This dexterity, this power, are the properties of the artist *quâ* artist. Yet we must not forget that the form created by the artist for the expression of a thought or feeling is not the final end of art itself. That form, after all, is but the mode of presentation through which the spiritual content manifests itself. Beauty, in like manner, is not the final end of art, but is the indispensable condition under which the artistic manifestation of the spiritual content must be made. It is the business of art to create an ideal world, in which perception, emotion, understanding, action, all elements of human life sublimed by thought, shall reappear in concrete forms as beauty. This being so, the logical criticism of art demands that we should not only estimate the technical skill of an artist and his faculty for presenting beauty to the

æsthetic sense, but that we should also ask ourselves what portion of the human spirit he has chosen to invest with form, and how he has conceived his subject. It is not necessary that the ideas embodied in a work of art should be the artist's own. They may be common to the race and age: as, for instance, the conception of sovereign deity expressed in the Olympian Zeus of Pheidias, or the conception of divine maternity expressed in Raphael's Madonna di San Sisto. Still the personality of the artist, his own intellectual and moral nature, his peculiar way of thinking and feeling, his individual attitude toward the material given to him in ideas of human consciousness, will modify his choice of subject and of form, and will determine his specific type of beauty. To take an example: supposing that an idea, common to his race and age, is given to the artist for treatment; this will be the final end of the work of art which he produces. But his personal qualities and technical performance determine the degree of success or failure to which he attains in seizing that idea and in presenting it with beauty. Signorelli fails where Perugino excels, in giving adequate and lovely form to the religious sentiment. Michel Angelo is sure of the sublime, and Raphael of the beautiful.

Art is thus the expression of the human spirit by the artist to his fellow-men. The subject-

matter of the arts is commensurate with what man thinks and feels and does. It is as deep as religion, as wide as life. But what distinguishes art from religion or from life is, that this subject-matter must assume beautiful form, and must be presented directly or indirectly to the senses. Art is not the school or the cathedral, but the playground, the paradise of humanity. It does not teach, it does not preach. Nothing abstract enters into art's domain. Truth and goodness are transmuted into beauty there, just as in science beauty and goodness assume the shape of truth, and in religion truth and beauty become goodness. The rigid definitions, the unmistakable laws of science, are not to be found in art. Whatever art has touched acquires a concrete sensuous embodiment, and thus ideas presented to the mind in art have lost a portion of their pure thought-essence. It is on this account that the religious conceptions of the Greeks were so admirably fitted for the art of sculpture, and certain portions of the mediæval Christian mythology lent themselves so well to painting. For the same reason the metaphysics of ecclesiastical dogma defy the artist's plastic faculty. Art, in a word, is a middle term between reason and the senses. Its secondary aim, after the prime end of manifesting the human spirit in beautiful form has been accomplished, is to give tranquil and innocent enjoyment.

II

From what has gone before, it will be seen that no human being can make or mould a beautiful form without incorporating in that form some portion of the human mind, however crude, however elementary. In other words, there is no work of art without a theme, without a motive, without a subject. The presentation of that theme, that motive, that subject, is the final end of art. The art is good or bad according as the subject has been well or ill presented, consistently with the laws of beauty special to the art itself. Thus we obtain two standards for æsthetic criticism. We judge a statue, for example, both by the sculptor's intellectual grasp upon his subject, and also by his technical skill and sense of beauty. In a picture of the Last Judgment by Fra Angelico we say that the bliss of the righteous has been more successfully treated than the torments of the wicked, because the former has been better understood, although the painter's skill in each is equal. In the Perseus of Cellini we admire the sculptor's spirit, finish of execution, and originality of design, while we deplore that want of sympathy with the heroic character which makes his type of physical beauty slightly vulgar and his facial expression vacuous.

If the phrase "Art for art's sake" has any meaning, this meaning is simply that the artist,

having chosen a theme, thinks exclusively in working at it of technical dexterity or the quality of beauty. There are many inducements for the artist thus to narrow his function, and for the critic to assist him by applying the canons of a soulless connoisseurship to his work; for the conception of the subject is but the starting-point in art-production, and the artist's difficulties and triumphs as a craftsman lie in the region of technicalities. He knows, moreover, that however deep or noble his idea may be, his work of art will be worthless if it fail in skill or be devoid of beauty. What converts a thought into a statue or a picture, is the form found for it; and so the form itself seems all-important. The artist, therefore, too easily imagines that he may neglect his theme; that a fine piece of coloring, a well-balanced composition, or, as Cellini put it, "*un bel corpo ignudo*," [1] is enough. And this is especially easy in an age which reflects much upon the arts, and pursues them with enthusiasm, while its deeper thoughts and sentiments are not of the kind which translate themselves readily into artistic form. But, after all, a fine piece of coloring, a well-balanced composition, a sonorous stanza, a learned essay in counterpoint, are not enough. They are all excellent good things, yielding delight to the artistic sense and instruction to the student. Yet when we think of

[1] A beautiful unadorned body.

the really great statues, pictures, poems, music of the world, we find that these are really great because of something more—and that more is their theme, their presentation of a noble portion of the human soul. Artists and art-students may be satisfied with perfect specimens of a craftsman's skill, independent of his theme; but the mass of men will not be satisfied; and it is as wrong to suppose that art exists for artists and art-students, as to talk of art for art's sake. Art exists for humanity. Art transmutes thought and feeling into terms of beautiful form. Art is great and lasting in proportion as it appeals to the human consciousness at large, presenting to it portions of itself in adequate and lovely form.

III

It was necessary in the first place firmly to apprehend the truth that the final end of all art is the presentation of a spiritual content; it is necessary in the next place to remove confusions by considering the special circumstances of the several arts.

Each art has its own vehicle of expression. What it can present and how it can present it, depends upon the nature of this vehicle. Thus, though architecture, sculpture, painting, music, poetry, meet upon the common ground of spirit-

ualized experience—though the works of art produced by the architect, sculptor, painter, musician, poet, emanate from the spiritual nature of the race, are colored by the spiritual nature of the men who make them, and express what is spiritual in humanity under concrete forms invented for them by the artist—yet it is certain that all of these arts do not deal exactly with the same portions of this common material in the same way or with the same results. Each has its own department. Each exhibits qualities of strength and weakness special to itself. To define these several departments, to explain the relation of these several vehicles of presentation to the common subject-matter, is the next step in criticism.

IV

Of the fine arts, architecture alone subserves utility. We build for use. But the geometrical proportions which the architect observes contain the element of beauty and powerfully influence the soul. Into the language of arch and aisle and colonnade, of cupola and façade and pediment, of spire and vault, the architect translates emotion, vague, perhaps, but deep, mute but unmistakable. When we say that a building is sublime or graceful, frivolous or stern, we mean that sublimity or grace, frivolity or sternness, is inherent in it. The

emotions connected with these qualities are inspired in us when we contemplate it, and are presented to us by its form. Whether the architect deliberately aimed at the sublime or graceful—whether the dignified serenity of the Athenian genius sought to express itself in the Parthenon,[1] and the mysticism of mediæval Christianity in the gloom of Chartres Cathedral—whether it was Renaissance paganism which gave its mundane pomp and glory to S. Peter's,[2] and the refined selfishness of royalty its specious splendor to the palace of Versailles—need not be curiously questioned. The fact that we are impelled to raise these points, that architecture more almost than any other art connects itself indissolubly with the life, the character, the moral being of a nation and an epoch, proves that we are justified in bringing it beneath our general definition of the arts. In a great measure because it subserves utility, and is therefore dependent upon the necessities of life, does architecture present to us through form the human spirit. Comparing the palace built by Giulio Romano [3] for the Dukes of Mantua with the contemporary castle of a German prince, we cannot fail at once to comprehend the difference of spiritual conditions, as these dis-

[1] A temple upon the Acropolis in Athens.
[2] The Church of St. Peter in Rome.
[3] An Italian painter and architect (1492-1546).

played themselves in daily life, which then separated Italy from the Teutonic nations. But this is not all. Spiritual quality in the architect himself finds clear expression in his work. Coldness combined with violence marks Brunelleschi's churches; a certain suavity and well-bred taste the work of Bramante; while Michel Angelo exhibits wayward energy in his library of S. Lorenzo,[1] and Amadeo [2] self-abandonment to fancy in his Lombard chapels. I have chosen examples from one nation and one epoch in order that the point I seek to make, the demonstration of a spiritual quality in buildings, may be fairly stated.

V

Sculpture and painting distinguish themselves from the other fine arts by the imitation of concrete existences in nature. They copy the bodies of men and animals, the aspects of the world around us, and the handiwork of mankind. Yet, in so far as they are rightly arts, they do not make imitation an object in itself. The grapes of Zeuxis at which birds pecked, the painted dog at which a cat's hair bristles—if such grapes or such a dog were ever put upon canvas—are but evi-

[1] A famous library in Florence.

[2] Giovanni Antonio Amadeo, a noted Lombard sculptor (1447-1522).

dences of the artist's skill, not of his faculty as artist. These two plastic, or, as I prefer to call them, figurative arts, use their imitation of the external world for the expression, the presentation of internal, spiritual things. The human form is for them the outward symbol of the inner human spirit, and their power of presenting spirit is limited by the means at their disposal.

Sculpture employs stone, wood, clay, the precious metals, to model forms, detached and independent, or raised upon a flat surface in relief. Its domain is the whole range of human character and consciousness, in so far as these can be indicated by fixed facial expression, by physical type, and by attitude. If we dwell for an instant on the greatest historical epoch of sculpture, we shall understand the domains of this art in its range and limitation. At a certain point of Greek development the Hellenic Pantheon began to be translated by the sculptors into statues: and when the genius of the Greeks expired in Rome, the cycle of their psychological conceptions had been exhaustively presented through this medium. During that long period of time, the most delicate gradations of human personality, divinized, idealized, were submitted to the contemplation of the consciousness which gave them being, in appropriate types. Strength and swiftness, massive force and airy lightness, contemplative repose

and active energy, voluptuous softness and refined grace, intellectual sublimity and lascivious seductiveness—the whole rhythm of qualities which can be typified by bodily form—were analyzed, selected, combined in various degrees, to incarnate the religious conceptions of Zeus, Aphrodite, Herakles, Dionysus, Pallas, Fauns and Satyrs, Nymphs of woods and waves, Tritons, the genius of Death, heroes and hunters, lawgivers and poets, presiding deities of minor functions, man's lustful appetites and sensual needs. All that men think, or do, or are, or wish for, or imagine in this world, had found exact corporeal equivalents. Not physiognomy alone, but all the portions of the body upon which the habits of the animating soul are wont to stamp themselves, were studied and employed as symbolism. Uranian Aphrodite was distinguished from her Pandemic sister [1] by chastened, lust-repelling loveliness. The muscles of Herakles were more ponderous than the tense sinews of Achilles. The Hermes of the palæstra bore a torso of majestic depth; the Hermes who carried messages from heaven had limbs alert for movement. The brows of Zeus inspired awe; the breasts of Dionysus breathed delight.

A race accustomed, as the Greeks were, to read

[1] The two names, Aphrodite Urania and Aphrodite Pandemos, represent two distinct moral conceptions of this goddess.

this symbolism, accustomed, as the Greeks were, to note the individuality of naked form, had no difficulty in interpreting the language of sculpture. Nor is there even now much difficulty in the task. Our surest guide to the subject of a bas-relief or statue is study of the physical type considered as symbolical of spiritual quality. From the fragment of a torso the true critic can say whether it belongs to the athletic or the erotic species. A limb of Bacchus differs from a limb of Poseidon. The whole psychological conception of Aphrodite Pandemos enters into every muscle, every joint, no less than into her physiognomy, her hair, her attitude.

There is, however, a limit to the domain of sculpture. This art deals most successfully with personified generalities. It is also strong in the presentation of incarnate character. But when it attempts to tell a story, we often seek in vain its meaning. Battles of Amazons or Centaurs upon bas-reliefs, indeed, are unmistakable. The subject is indicated here by some external sign. The group Laocoön appeals at once to a reader of Virgil, and the divine vengeance of Leto's children upon Niobe is manifest in the Uffizzi[1] marbles. But who are the several heroes of the Æginetan[2]

[1] A famous art gallery in Florence.

[2] The Æginetan marbles from the temple on the island of Ægina, off the western coast of Greece.

pediment, and what was the subject of the Pheidian statues on the Parthenon? Do the three graceful figures of a bas-relief which exists at Naples and in the Villa Albani [1] represent Orpheus, Hermes, and Eurydice, or Antiope and her two sons? Was the winged and sworded genius upon the Ephesus column meant for a genius of Death or a genius of Love?

This dimness of significance indicates the limitations of sculpture, and inclines some of those who feel its charm to assert that the sculptor seeks to convey no intellectual meaning, that he is satisfied with the creation of beautiful form. There is an element of good sense in this revolt against the faith which holds that art is nothing but a mode of spiritual presentation. Truly the artist aims at producing beauty, is satisfied if he conveys delight. But it is impossible to escape from the certainty that, while he is creating forms of beauty, he means something, feels something; and that something, that theme for which he finds the form, is part of the world's spiritual heritage. Only the crudest works of figurative art, capricci and arabesques, have no intellectual content; and even these are good in so far as they convey the playfulness of fancy.

[1] A villa in Rome containing a collection of antiquities.

VI

Painting employs colors upon surfaces—walls, panels, canvas. What has been said about sculpture will apply in a great measure to this art. The human form, the world around us, the works of man's hands, are represented in painting, not for their own sake merely, but with the view of bringing thought, feeling, action, home to the consciousness of the spectator from the artist's consciousness on which they have been impressed. Painting can tell a story better than sculpture, can represent more complicated feelings, can suggest thoughts of a subtler intricacy. Through color, it can play, like music, directly on powerful but vague emotion. It is deficient in the fulness and roundness of concrete reality. A statue stands before us, the soul incarnate in palpable form, fixed and frozen for eternity. The picture is a reflection cast upon a magic glass; not less permanent, but reduced to a shadow of palpable reality. To follow these distinctions farther would be alien from the present purpose. It is enough to repeat that, within their several spheres, according to their several strengths and weaknesses, both sculpture and painting present the spirit to us only as the spirit shows itself immersed in things of sense. The light of a lamp enclosed within an alabaster vase is still lamplight, though shorn of

lustre and toned to colored softness. Even thus the spirit, immersed in things of sense presented to us by the figurative arts, is still spirit, though diminished in its intellectual clearness and invested with hues not its own. To fashion that alabaster form of art with utmost skill, to make it beautiful, to render it transparent, is the artist's function. But he will have failed of the highest if the light within burns dim, or if he gives the world a lamp in which no spiritual flame is lighted.

VII

Music transports us to a different region. Like architecture, it imitates nothing. It uses pure sound, and sound of the most wholly artificial kind—so artificial that the musical sounds of one race are unmusical, and therefore unintelligible, to another. Like architecture, music relies upon mathematical proportions. Unlike architecture, music serves no utility. It is the purest art of pleasure—the truest paradise and playground of the spirit. It has less power than painting, even less power than sculpture, to tell a story or to communicate an idea. For we must remember that when music is married to words, the words, and not the music, reach our thinking faculty. And yet, in spite of all this, music presents man's spirit to itself through form. The domain of the

spirit over which music reigns, is emotion—not defined emotion, not feeling even so generally defined as jealousy or anger—but those broad bases of man's being out of which emotions spring, defining themselves through action into this or that set type of feeling. Architecture, we have noticed, is so connected with specific modes of human existence, that from its main examples we can reconstruct the life of men who used it. Sculpture and painting, by limiting their presentation to the imitation of external things, have all the help which experience and association render. The mere artificiality of music's vehicle separates it from life and makes its message untranslatable. Nevertheless, this very disability under which it labors is the secret of its extraordinary potency.

To expect clear definition from music—the definition which belongs to poetry—would be absurd. The sphere of music is in sensuous perception; the sphere of poetry is in intelligence. Music, dealing with pure sound, must always be vaguer in significance than poetry, which deals with words. Nevertheless its effect upon the sentient subject may be more intense and penetrating for this very reason. We cannot fail to understand what words are intended to convey; we may very easily interpret in a hundred different ways the message of sound. But this is not because words are wider in their reach and more alive; rather because they

are more limited, more stereotyped, more dead. They symbolize something precise and unmistakable; but this precision is itself attenuation of the something symbolized. The exact value of the counter is better understood when it is a word than when it is a chord, because all that a word conveys has already become a thought, while all that musical sounds convey remains within the region of emotion which has not been intellectualized.[1] Poetry touches emotion through the thinking faculty. If music reaches the thinking faculty at all, it is through fibres of emotion. But emotion, when it has become thought, has already lost a portion of its force, and has taken to itself a something alien to its nature. Therefore the message of music can never rightly be translated into words. It is the very largeness and vividness of the sphere of simple feeling which makes its symbolical counterpart in sound so seeming vague. But in spite of this incontestable defect of seeming vagueness, an emotion expressed by music is nearer to our sentient self, if we have ears to take it in, than the same emotion limited by language. It is intenser, it is more immediate, as compensation for being less intelligible, less unmistakable in meaning. It is an infinite, an indistinct, where each consciousness defines and sets a limitary form.

[1] "Thought," said Novalis somewhere, "is only a pale, desiccated emotion." [Author's note.]

Nothing intervenes between the musical work of art and the fibres of the sentient being it immediately thrills. We do not seek to say what music means. We feel the music. And if a man should pretend that the music has not passed beyond his ears, has communicated nothing but a musical delight, he simply tells us that he has not felt music. The ancients on this point were wiser than some moderns when, without pretending to assign an intellectual significance to music, they held it for an axiom that one type of music bred one type of character, another type another. A change in the music of a state, wrote Plato, will be followed by changes in its constitution. It is of the utmost importance, said Aristotle, to provide in education for the use of the ennobling and the fortifying moods. These philosophers knew that music creates a spiritual world, in which the spirit cannot live and move without contracting habits of emotion. In this vagueness of significance but intensity of feeling lies the magic of music. A melody occurs to the composer, which he certainly connects with no act of the reason, which he is probably unconscious of connecting with any movement of his feeling, but which nevertheless is the form in sound of an emotional mood. When he reflects upon the melody secreted thus impromptu, he is aware, as we learn from his own lips, that this work has correspondence with emotion. Bee-

thoven calls one symphony Heroic, another Pastoral; of the opening of another he says, "Fate knocks at the door." Mozart sets comic words to the mass-music of a friend, in order to mark his sense of its inaptitude for religious sentiment. All composers use phrases like Maestoso, Pomposo, Allegro, Lagrimoso, Con Fuoco,[1] to express the general complexion of the mood their music ought to represent.

VIII

Before passing to poetry, it may be well to turn aside and consider two subordinate arts, which deserve a place in any system of æsthetics. These are dancing and acting. Dancing uses the living human form, and presents feeling or action, the passions and the deeds of men, in artificially educated movements of the body. The element of beauty it possesses, independently of the beauty of the dancer, is rhythm. Acting or the art of mimicry presents the same subject-matter, no longer under the conditions of fixed rhythm, but as an ideal reproduction of reality. The actor is what he represents, and the element of beauty in his art is perfection of realization. It is his duty as an artist to show us Orestes or Othello, not

[1] *Maestoso,* majestic; *Pomposo,* pompous; *Allegro,* gay, lively; *Lagrimoso,* tearful; *Con Fuoco,* with fire, passionately.

perhaps exactly as Othello and Orestes were, but as the essence of their tragedies, ideally incorporate in action, ought to be. The actor can do this in dumb show. Some of the greatest actors of the ancient world were mimes. But he usually interprets a poet's thought, and attempts to present an artistic conception in a secondary form of art, which has for its advantage his own personality in play.

IX

The last of the fine arts is literature; or, in the narrower sphere of which it will be well to speak here only, is poetry. Poetry employs words in fixed rhythms, which we call metres. Only a small portion of its effect is derived from the beauty of its sound. It appeals to the sense of hearing far less immediately than music does. It makes no appeal to the eyesight, and takes no help from the beauty of color. It produces no palpable, tangible object. But language being the storehouse of all human experience, language being the medium whereby spirit communicates with spirit in affairs of life, the vehicle which transmits to us the thoughts and feelings of the past, and on which we rely for continuing our present to the future, it follows that, of all the arts, poetry soars highest, flies widest, and is most at home in the region of the spirit. What poetry lacks of sensuous fulness,

it more than balances by intellectual intensity. Its significance is unmistakable, because it employs the very material men use in their exchange of thoughts and correspondence of emotions. To the bounds of its empire there is no end. It embraces in its own more abstract being all the arts. By words it does the work in turn of architecture, sculpture, painting, music. It is the metaphysic of the fine arts. Philosophy finds place in poetry; and life itself, refined to its last utterance, hangs trembling on this thread which joins our earth to heaven, this bridge between experience and the realms where unattainable and imperceptible will have no meaning.

If we are right in defining art as the manifestation of the human spirit to man by man in beautiful form, poetry, more incontestably than any other art, fulfils this definition and enables us to gauge its accuracy. For words are the spirit, manifested to itself in symbols with no sensual alloy. Poetry is therefore the presentation, through words, of life and all that life implies. Perception, emotion, thought, action, find in descriptive, lyrical, reflective, dramatic, and epical poetry their immediate apocalypse. In poetry we are no longer puzzled with problems as to whether art has or has not of necessity a spiritual content. There cannot be any poetry whatsoever without a spiritual meaning of some sort: good or bad, moral,

immoral, or non-moral, obscure or lucid, noble or ignoble, slight or weighty—such distinctions do not signify. In poetry we are not met by questions whether the poet intended to convey a meaning when he made it. Quite meaningless poetry (as some critics would fain find melody quite meaningless, or a statue meaningless, or a Venetian picture meaningless) is a contradiction in terms. In poetry, life, or a portion of life, lives again, resuscitated and presented to our mental faculty through art. The best poetry is that which reproduces the most of life, or its intensest moments. Therefore the extensive species of the drama and the epic, the intensive species of the lyric, have been ever held in highest esteem. Only a paradoxical critic maintains the thesis that poetry is excellent in so far as it assimilates the vagueness of music, or estimates a poet by his power of translating sense upon the border-land of nonsense into melodious words. Where poetry falls short in the comparison with other arts, is in the quality of form-giving, in the quality of sensuous concreteness. Poetry can only present forms to the mental eye and to the intellectual sense, stimulate the physical senses by indirect suggestion. Therefore dramatic poetry, the most complicated kind of poetry, relies upon the actor; and lyrical poetry, the intensest kind of poetry, seeks the aid of music. But these comparative deficiences are

overbalanced, for all the highest purposes of art, by the width and depth, the intelligibility and power, the flexibility and multitudinous associations of language. The other arts are limited in what they utter. There is nothing which has entered into the life of man which poetry cannot express. Poetry says everything in man's own language to the mind. The other arts appeal imperatively, each in its own region, to man's senses; and the mind receives art's message by the help of symbols from the world of sense. Poetry lacks this immediate appeal to sense. But the elixir which it offers to the mind, its quintessence extracted from all things of sense, reacts through intellectual perception upon all the faculties that make men what they are.

X

I used a metaphor in one of the foregoing paragraphs to indicate the presence of the vital spirit, the essential element of thought or feeling, in the work of art. I said it radiated through the form, as lamplight through an alabaster vase. Now the skill of the artist is displayed in modelling that vase, in giving it shape, rich and rare, and fashioning its curves with subtlest workmanship. In so far as he is a craftsman, the artist's pains must be bestowed upon this precious vessel of the ani-

mating theme. In so far as he has power over beauty, he must exert it in this plastic act. It is here that he displays dexterity; here that he creates; here that he separates himself from other men who think and feel. The poet, more perhaps than any other artist, needs to keep this steadily in view; for words being our daily vehicle of utterance, it may well chance that the alabaster vase of language should be hastily or trivially modelled. This is the true reason why "neither gods nor men nor the columns either suffer mediocrity in singers." Upon the poet it is specially incumbent to see that he has something rare to say and some rich mode of saying it. The figurative arts need hardly be so cautioned. They run their risk in quite a different direction. For sculptor and for painter, the danger is lest he should think that alabaster vase his final task. He may too easily be satisfied with moulding a beautiful but empty form.

LITERATURE[1]

JOHN HENRY NEWMAN

Wishing to address you, Gentlemen, at the commencement of a new Session, I tried to find a subject for discussion which might be at once suitable to the occasion, yet neither too large for your time, nor too minute or abtruse for your attention. I think I see one for my purpose in the very title of your Faculty. It is the Faculty of Philosophy and Letters. Now the question may arise as to what is meant by "Philosophy," and what is meant by "Letters." As to the other Faculties, the subject-matter which they profess is intelligible, as soon as named, and beyond all dispute. We know what Science is, what Medicine, what Law, and what Theology; but we have not so much ease in determining what is meant by Philosophy and Letters. Each department of that twofold province needs explanation: it will be sufficient, on an occasion like this, to investigate one of them. Accordingly I shall select for remark the latter of the

[1] A lecture read in the School of Philosophy and Letters, Dublin, November, 1858. Reprinted from *The Idea of a University*.

two, and attempt to determine what we are to understand by Letters or Literature, in what Literature consists, and how it stands relatively to Science. We speak, for instance, of ancient and modern literature, the literature of the day, sacred literature, light literature; and our lectures in this place are devoted to classical literature and English literature. Are Letters, then, synonymous with books? This cannot be, or they would include in their range Philosophy, Law, and, in short, the teaching of all the other Faculties. Far from confusing these various studies, we view the works of Plato or Cicero sometimes as philosophy, sometimes as literature; on the other hand, no one would ever be tempted to speak of Euclid as literature, or of Matthiæ's Greek Grammar. Is, then, literature synonymous with composition? with books written with an attention to style? is literature fine writing? again, is it studied and artificial writing?

There are excellent persons who seem to adopt this last account of Literature as their own idea of it. They depreciate it, as if it were the result of a mere art or trick of words. Professedly indeed, they are aiming at the Greek and Roman classics, but their criticisms have quite as great force against all literature as against any. I think I shall be best able to bring out what I have to say on the subject by examining the statements which

they make in defence of their own view of it. They contend, then, 1. that fine writing, as exemplified in the Classics, is mainly a matter of conceits, fancies, and prettinesses, decked out in choice words; 2. that this is the proof of it, that the classics will not bear translating;—(and this is why I have said that the real attack is upon literature altogether, not the classical only; for, to speak generally, all literature, modern as well as ancient, lies under this disadvantage. This, however, they will not allow; for they maintain,) 3. that Holy Scripture presents a remarkable contrast to secular writings on this very point, *viz.*, in that Scripture does easily admit of translation, though it is the most sublime and beautiful of all writings.

Now I will begin by stating these three positions in the word of a writer [1] who is cited by the estimable Catholics in question as a witness, or rather as an advocate, in their behalf, though he is far from being able in his own person to challenge the respect which is inspired by themselves.

"There are two sorts of eloquence," says this writer, "the one indeed scarce deserves the name of it, which consists chiefly in labored and polished periods, an over-curious and artificial arrangement of figures, tinselled over with a gaudy em-

[1] Laurence Sterne (1713-1768), English novelist, and clergyman of the Anglican Church.

bellishment of words, which glitter, but convey little or no light to the understanding. This kind of writing is for the most part much affected and admired by the people of weak judgment and vicious taste; but it is a piece of affectation and formality the sacred writers are utter strangers to. It is a vain and boyish eloquence; and, as it has always been esteemed below the great geniuses of all ages, so much more so with respect to those writers who were actuated by the spirit of Infinite Wisdom, and therefore wrote with that force and majesty with which never man writ. The other sort of eloquence is quite the reverse to this, and which may be said to be the true characteristic of the Holy Scriptures; where the excellence does not arise from a labored and far-fetched elocution, but from a surprising mixture of simplicity and majesty, which is a double character, so difficult to be united that it is seldom to be met with in compositions merely human. We see nothing in Holy Writ of affectation and superfluous ornament. . . . Now, it is observable that the most excellent profane authors, whether Greek or Latin, lose most of their graces whenever we find them literally translated. Homer's famed representation of Jupiter—his cried-up description of a tempest, his relation of Neptune's shaking the earth and opening it to its centre, his description of Pallas's horses, with numbers of other long-since

admired passages, flag, and almost vanish away, in the vulgar Latin translation.

"Let any one but take the pains to read the common Latin interpretations of Virgil, Theocritus, or even of Pindar, and one may venture to affirm he will be able to trace out but few remains of the graces which charmed him so much in the original. The natural conclusion from hence is, that in the classical authors, the expression, the sweetness of the numbers, occasioned by a musical placing of words, constitute a great part of their beauties; whereas, in the sacred writings, they consist more in the greatness of the things themselves than in the words and expressions. The ideas and conceptions are so great and lofty in their own nature that they necessarily appear magnificent in the most artless dress. Look but into the Bible, and we see them shine through the most simple and literal translations. That glorious description which Moses gives of the creation of the heavens and the earth, which Longinus . . . was so greatly taken with, has not lost the least whit of its intrinsic worth, and though it has undergone so many translations, yet triumphs over all, and breaks forth with as much force and vehemence as in the original. . . . In the history of Joseph, where Joseph makes himself known, and weeps aloud upon the neck of his dear brother Benjamin, that all the house of Pharaoh heard him, at that

instant none of his brethren are introduced as uttering aught, either to express their present joy or palliate their former injuries to him. On all sides there immediately ensues a deep and solemn silence; a silence infinitely more eloquent and expressive than anything else that could have been substituted in its place. Had Thucydides, Herodotus, Livy, or any of the celebrated classical historians, been employed in writing this history, when they came to this point they would doubtless have exhausted all their fund of eloquence in furnishing Joseph's brethren with labored and studied harangues, which, however fine they might have been in themselves, would nevertheless have been unnatural, and altogether improper on the occasion." [1]

This is eloquently written, but it contains, I consider, a mixture of truth and falsehood, which it will be my business to discriminate from each other. Far be it from me to deny the unapproachable grandeur and simplicity of Holy Scripture; but I shall maintain that the classics are, as human compositions, simple and majestic and natural too. I grant that Scripture is concerned with things, but I will not grant that classical literature is simply concerned with words. I grant that human literature is often elaborate, but I will maintain that elaborate composition is not un-

[1] Sterne, Sermon xlii. [Author's note.]

known to the writers of Scripture. I grant that human literature cannot easily be translated out of the particular language to which it belongs; but it is not at all the rule that Scripture can easily be translated either;—and now I address myself to my task:—

Here, then, in the first place, I observe, Gentlemen, that Literature, from the derivation of the word, implies writing, not speaking; this, however, arises from the circumstance of the copiousness, variety, and public circulation of the matters of which it consists. What is spoken cannot outrun the range of the speaker's voice, and perishes in the uttering. When words are in demand to express a long course of thought, when they have to be conveyed to the ends of the earth, or perpetuated for the benefit of posterity, they must be written down, that is, reduced to the shape of literature; still, properly speaking, the terms, by which we denote this characteristic gift of man, belong to its exhibition by means of the voice, not of handwriting. It addresses itself, in its primary idea, to the ear, not to the eye. We call it the power of speech, we call it language, that is, the use of the tongue; and, even when we write, we still keep in mind what was its original instrument, for we use freely such terms in our books as "saying," "speaking," "telling," "talking," "calling"; we use the terms "phraseology" and "diction";

as if we were still addressing ourselves to the ear.

Now I insist on this, because it shows that speech, and therefore literature, which is its permanent record, is essentially a personal work. It is not some production or result, attained by the partnership of several persons, or by machinery, or by any natural process, but in its very idea it proceeds, and must proceed, from some one given individual. Two persons cannot be the authors of the sounds which strike our ear; and, as they cannot be speaking one and the same speech, neither can they be writing one and the same lecture or discourse,—which must certainly belong to some one person or other, and is the expression of that one person's ideas and feelings,—ideas and feelings personal to himself, though others may have parallel and similar ones,—proper to himself, in the same sense as his voice, his air, his countenance, his carriage, and his action, are personal. In other words, Literature expresses, not objective truth, as it is called, but subjective; not things, but thoughts.

Now this doctrine will become clearer by considering another use of words, which does relate to objective truth, or to things; which relates to matters, not personal, not subjective to the individual, but which, even were there no individual man in the whole world to know them or to talk

about them, would exist still. Such objects become the matter of Science, and words indeed are used to express them, but such words are rather symbols than language, and however many we use, and however we may perpetuate them by writing, we never could make any kind of literature out of them, or call them by that name. Such, for instance, would be Euclid's Elements; they relate to truths universal and eternal; they are not mere thoughts, but things: they exist in themselves, not by virtue of our understanding them, not in dependence upon our will, but in what is called the *nature* of things, or at least on conditions external to us. The words, then, in which they are set forth are not language, speech, literature, but rather, as I have said, symbols. And, as a proof of it, you will recollect that it is possible, nay usual, to set forth the propositions of Euclid in algebraical notation, which, as all would admit, has nothing to do with literature. What is true of mathematics is true also of every study, so far forth as it is scientific; it makes use of words as the mere vehicle of things, and is thereby withdrawn from the province of literature. Thus metaphysics, ethics, law, political economy, chemistry, theology, cease to be literature in the same degree as they are capable of a severe scientific treatment. And hence it is that Aristotle's works on the one hand, though at first sight literature,

approach in character, at least a great number of them, to mere science; for even though the things which he treats of and exhibits may not always be real and true, yet he treats them as if they were, not as if they were the thoughts of his own mind; that is, he treats them scientifically. On the other hand, Law or Natural History has before now been treated by an author with so much of coloring derived from his own mind as to become a sort of literature; this is especially seen in the instance of Theology, when it takes the shape of Pulpit Eloquence. It is seen too in historical composition, which becomes a mere specimen of chronology, or a chronicle, when divested of the philosophy, the skill, or the party and personal feelings of the particular writer. Science, then, has to do with things, literature with thoughts; science is universal, literature is personal; science uses words merely as symbols, but literature uses language in its full compass, as including phraseology, idiom, style, composition, rhythm, eloquence, and whatever other properties are included in it.

Let us then put aside the scientific use of words, when we are to speak of language and literature. Literature is the personal use or exercise of language. That this is so is further proved from the fact that one author uses it so differently from another. Language itself in its very origination would seem to be traceable to individuals. Their

peculiarities have given it its character. We are often able in fact to trace particular phrases or idioms to individuals; we know the history of their rise. Slang surely, as it is called, comes of, and breathes of the personal. The connection between the force of words in particular languages and the habits and sentiments of the nations speaking them has often been pointed out. And, while the many use language as they find it, the man of genius uses it indeed, but subjects it withal to his own purposes, and moulds it according to his own peculiarities. The throng and succession of ideas, thoughts, feelings, imaginations, aspirations, which pass within him, the abstractions, the juxtapositions, the comparisons, the discriminations, the conceptions, which are so original in him, his views of external things, his judgments upon life, manners, and history, the exercises of his wit, of his humor, of his depth, of his sagacity, all these innumerable and incessant creations, the very pulsation and throbbing of his intellect, does he image forth, to all does he give utterance, in a corresponding language, which is as multiform as this inward mental action itself and analogous to it, the faithful expression of his intense personality, attending on his own inward world of thought as its very shadow: so that we might as well say that one man's shadow is another's as that the style of a really gifted mind can belong to any but him-

self. It follows him about *as* a shadow. His thought and feeling are personal, and so his language is personal.

Thought and speech are inseparable from each other. Matter and expression are parts of one: style is a thinking out into language. This is what I have been laying down, and this is literature; not *things*, not the verbal symbols of things; not on the other hand mere *words;* but thoughts expressed in language. Call to mind, Gentlemen, the meaning of the Greek word which expresses this special prerogative of man over the feeble intelligence of the inferior animals. It is called Logos: what does Logos mean? it stands both for *reason* and for *speech*, and it is difficult to say which it means more properly. It means both at once: why? because really they cannot be divided, —because they are in a true sense one. When we can separate light and illumination, life and motion, the convex and the concave of a curve, then will it be possible for thought to tread speech under foot, and to hope to do without it—then will it be conceivable that the vigorous and fertile intellect should renounce its own double, its instrument of expression, and the channel of its speculations and emotions.

Critics should consider this view of the subject before they lay down such canons of taste as the writer whose pages I have quoted. Such men as he

is consider fine writing to be an *addition from without* to the matter treated of,—a sort of ornament superinduced, or a luxury indulged in, by those who have time and inclination for such vanities. They speak as if *one* man could do the thought, and *another* the style. We read in Persian travels of the way in which young gentlemen go to work in the East, when they would engage in correspondence with those who inspire them with hope or fear. They cannot write one sentence themselves; so they betake themselves to the professional letter-writer. They confide to him the object they have in view. They have a point to gain from a superior, a favor to ask, an evil to deprecate; they have to approach a man in power, or to make court to some beautiful lady. The professional man manufactures words for them, as they are wanted, as a stationer sells them paper, or a schoolmaster might cut their pens. Thought and word are, in their conception, two things, and thus there is a division of labor. The man of thought comes to the man of words; and the man of words, duly instructed in the thought, dips the pen of desire into the ink of devotedness, and proceeds to spread it over the page of desolation. Then the nightingale of affection is heard to warble to the rose of loveliness, while the breeze of anxiety plays around the brow of expectation. This is what the Easterns are said to consider fine

writing; and it seems pretty much the idea of the school of critics to whom I have been referring.

We have an instance in literary history of this very proceeding nearer home, in a great University, in the latter years of the last century. I have referred to it before now in a public lecture elsewhere;[1] but it is too much in point here to be omitted. A learned Arabic scholar had to deliver a set of lectures before its doctors and professors on an historical subject in which his reading had lain. A linguist is conversant with science rather than with literature; but this gentleman felt that his lectures must not be without a style. Being of the opinion of the Orientals, with whose writings he was familiar, he determined to buy a style. He took the step of engaging a person, at a price, to turn the matter which he had got together into ornamental English. Observe, he did not wish for mere grammatical English, but for an elaborate, pretentious style. An artist was found in the person of a country curate, and the job was carried out. His lectures remain to this day, in their own place in the protracted series of annual Discourses to which they belong, distinguished amid a number of heavyish compositions by the rhetorical and ambitious diction for which he went into the market. This learned divine, indeed, and the author I have

[1] "Position of Catholics in England," pp. 101, 2. [Author's note.]

quoted, differ from each other in the estimate they respectively form of literary composition; but they agree together in this,—in considering such composition a trick and a trade; they put it on a par with the gold plate and the flowers and the music of a banquet, which do not make the viands better, but the entertainment more pleasurable; as if language were the hired servant, the mere mistress of the reason, and not the lawful wife in her own house.

But can they really think that Homer, or Pindar, or Shakspeare, or Dryden, or Walter Scott, were accustomed to aim at diction for its own sake, instead of being inspired with their subject, and pouring forth beautiful words because they had beautiful thoughts? this is surely too great a paradox to be borne. Rather, it is the fire within the author's breast which overflows in the torrent of his burning, irresistible eloquence; it is the poetry of his inner soul, which relieves itself in the Ode or the Elegy; and his mental attitude and bearing, the beauty of his moral countenance, the force and keenness of his logic, are imaged in the tenderness, or energy, or richness of his language. Nay, according to the well-known line, "facit indignatio *versus*";[1] not the words alone, but even the rhythm, the metre, the verse, will be the contemporaneous offspring of the emotion or imagina-

[1] Indignation inspires verses.

tion which possesses him. "Poeta nascitur, non fit,"[1] says the proverb; and this is in numerous instances true of his poems, as well as of himself. They are born, not framed; they are a strain rather than a composition; and their perfection is the monument, not so much of his skill as of his power. And this is true of prose as well as of verse in its degree: who will not recognize in the Vision of Mirza[2] a delicacy and beauty of style which is very difficult to describe, but which is felt to be in exact correspondence to the ideas of which it is the expression?

And, since the thought and reasonings of an author have, as I have said, a personal character, no wonder that his style is not only the image of his subject, but of his mind. That pomp of language, that full and tuneful diction, that felicitousness in the choice and exquisiteness in the collocation of words, which to prosaic writers seems artificial, is nothing else but the mere habit and way of a lofty intellect. Aristotle, in his sketch of the magnanimous man, tells us that his voice is deep, his motions slow, and his stature commanding. In like manner, the elocution of a great intellect is great. His language expresses not only his great thoughts, but his great self. Cer-

[1] A poet is born, not made.

[2] An Oriental allegorical tale in Addison's *Spectator,* No. 159.

tainly he might use fewer words than he uses; but he fertilizes his simplest ideas, and germinates into a multitude of details, and prolongs the march of his sentences, and sweeps round to the full diapason of his harmony, as if *κύδει γαίων*,[1] rejoicing in his own vigor and richness of resource. I say, a narrow critic will call it verbiage, when really it is a sort of fulness of heart, parallel to that which makes the merry boy whistle as he walks, or the strong man, like the smith in the novel, flourish his club when there is no one to fight with.

Shakspeare furnishes us with frequent instances of this peculiarity, and all so beautiful, that it is difficult to select for quotation. For instance, in *Macbeth*:—

> Canst thou not minister to a mind diseased,
> Pluck from the memory a rooted sorrow,
> Raze out the written troubles of the brain,
> And, with some sweet oblivious antidote,
> Cleanse the foul bosom of that perilous stuff,
> Which weighs upon the heart?

Here a simple idea, by a process which belongs to the orator rather than to the poet, but still comes from the native vigor of genius, is expanded into a many-membered period.

The following from *Hamlet* is of the same kind:—

[1] Exulting in glory.

'Tis not alone my inky cloak, good mother,
Nor customary suits of solemn black,
Nor windy suspiration of forced breath,
No, nor the fruitful river in the eye,
Nor the dejected haviour of the visage,
Together with all forms, modes, shows of grief,
That can denote me truly.

Now if such declamation, for declamation it is, however noble, be allowable in a poet, whose genius is so far removed from pompousness or pretence, much more is it allowable in an orator, whose very province it is to put forth words to the best advantage he can. Cicero has nothing more redundant in any part of his writings than these passages from Shakspeare. No lover then at least of Shakspeare may fairly accuse Cicero of gorgeousness of phraseology or diffuseness of style. Nor will any sound critic be tempted to do so. As a certain unaffected neatness and propriety and grace of diction may be required of any author who lays claim to be a classic, for the same reason that a certain attention to dress is expected of every gentleman, so to Cicero may be allowed the privilege of the "os magna sonaturum,"[1] of which the ancient critic speaks. His copious, majestic, musical flow of language, even if sometimes beyond what the subject-matter demands, is never out of keeping with the occasion or with the speaker. It is the expression of lofty sentiments

[1] The tongue that is to utter great things.

in lofty sentences, the "mens magna in corpore magno."[1] It is the development of the inner man. Cicero vividly realized the *status* of a Roman senator and statesman, and the "pride of place" of Rome, in all the grace and grandeur which attached to her; and he imbibed, and became, what he admired. As the exploits of Scipio or Pompey are the expression of this greatness in deed, so the language of Cicero is the expression of it in word. And, as the acts of the Roman ruler or soldier represent to us, in a manner special to themselves, the characteristic magnanimity of the lords of the earth, so do the speeches or treatises of her accomplished orator bring it home to our imaginations as no other writing could do. Neither Livy, nor Tacitus, nor Terence, nor Seneca, nor Pliny, nor Quintilian, is an adequate spokesman for the Imperial City. They write Latin; Cicero writes Roman.

You will say that Cicero's language is undeniably studied, but that Shakspeare's is as undeniably natural and spontaneous; and that this is what is meant, when the Classics are accused of being mere artists of words. Here we are introduced to a further large question, which gives me the opportunity of anticipating a misapprehension of my meaning. I observe, then, that, not only is that lavish richness of style, which I have no-

[1] A great mind in a large body.

ticed in Shakspeare, justifiable on the principles which I have been laying down, but, what is less easy to receive, even elaborateness in composition is no mark of trick or artifice in an author. Undoubtedly the works of the Classics, particularly the Latin, *are* elaborate; they have cost a great deal of time, care, and trouble. They have had many rough copies; I grant it. I grant also that there are writers of name, ancient and modern, who really are guilty of the absurdity of making sentences, as the very end of their literary labor. Such was Isocrates; such were some of the sophists; they were set on words, to the neglect of thoughts or things; I cannot defend them. If I must give an English instance of this fault, much as I love and revere the personal character and intellectual vigor of Dr. Johnson, I cannot deny that his style often outruns the sense and the occasion, and is wanting in that simplicity which is the attribute of genius. Still, granting all this, I cannot grant, notwithstanding, that genius never need take pains,—that genius may not improve by practice,—that it never incurs failures, and succeeds the second time,—that it never finishes off at leisure what it has thrown off in the outline at a stroke.

Take the instance of the painter or the sculptor; he has a conception in his mind which he wishes to represent in the medium of his art;—the Madonna and Child, or Innocence, or Fortitude,

or some historical character or event. Do you mean to say he does not study his subject? does he not make sketches? does he not even call them "studies"? does he not call his workroom a *studio?* is he not ever designing, rejecting, adopting, correcting, perfecting? Are not the first attempts of Michael Angelo and Raffaelle extant, in the case of some of their most celebrated compositions? Will any one say that the Apollo Belvidere[1] is not a conception patiently elaborated into its proper perfection? These departments of taste are, according to the received notions of the world, the very province of genius, and yet we call them *arts;* they are the "Fine Arts." Why may not that be true of literary composition which is true of painting, sculpture, architecture, and music? Why may not language be wrought as well as the clay of the modeller? why may not words be worked up as well as colors? why should not skill in diction be simply subservient and instrumental to the great prototypal ideas which are the contemplation of a Plato or a Virgil? Our greatest poet tells us,

> The poet's eye, in a fine frenzy rolling,
> Doth glance from heaven to earth, from earth to heaven,
> And, as imagination bodies forth
> The forms of things unknown, the poet's pen
> Turns them to shapes, and gives to airy nothing
> A local habitation and a name.

[1] A famous statue in the Vatican, Rome.

Now, is it wonderful that that pen of his should sometimes be at fault for a while,—that it should pause, write, erase, re-write, amend, complete, before he satisfies himself that his language has done justice to the conceptions which his mind's eye contemplated?

In this point of view, doubtless, many or most writers are elaborate; and those certainly not the least whose style is furthest removed from ornament, being simple and natural, or vehement, or severely business-like and practical. Who so energetic and manly as Demosthenes? Yet he is said to have transcribed Thucydides many times over in the formation of his style. Who so gracefully natural as Herodotus? yet his very dialect is not his own, but chosen for the sake of the perfection of his narrative. Who exhibits such happy negligence as our own Addison? yet artistic fastidiousness was so notorious in his instance that the report has got abroad, truly or not, that he was too late in his issue of an important state-paper, from his habit of revision and re-composition. Such great authors were working by a model which was before the eyes of their intellect, and they were laboring to say what they had to say, in such a way as would most exactly and suitably express it. It is not wonderful that other authors, whose style is not simple, should be instances of a similar literary diligence. Virgil

wished his Æneid to be burned, elaborate as is its composition, because he felt it needed more labor still, in order to make it perfect. The historian Gibbon in the last century is another instance in point. You must not suppose I am going to recommend his style for imitation, any more than his principles; but I refer to him as the example of a writer feeling the task which lay before him, feeling that he had to bring out into words for the comprehension of his readers a great and complicated scene, and wishing that those words should be adequate to his undertaking. I think he wrote the first chapter of his History three times over; it was not that he corrected or improved the first copy; but he put his first essay, and then his second, aside—he recast his matter, till he had hit the precise exhibition of it which he thought demanded by his subject.

Now in all these instances, I wish you to observe that what I have admitted about literary workmanship differs from the doctrine which I am opposing in this,—that the mere dealer in words cares little or nothing for the subject which he is embellishing, but can paint and gild anything whatever to order; whereas the artist, whom I am acknowledging, has his great or rich visions before him, and his only aim is to bring out what he thinks or what he feels in a way adequate to the thing spoken of, and appropriate to the speaker.

The illustration which I have been borrowing from the Fine Arts will enable me to go a step further. I have been showing the connection of the thought with the language in literary composition; and in doing so I have exposed the unphilosophical notion, that the language was an extra which could be dispensed with, and provided to order according to the demand. But I have not yet brought out, what immediately follows from this, and which was the second point which I had to show, *viz.*, that to be capable of easy translation is no test of the excellence of a composition. If I must say what I think, I should lay down, with little hesitation, that the truth was almost the reverse of this doctrine. Nor are many words required to show it. Such a doctrine, as is contained in the passage of the author whom I quoted when I began, goes upon the assumption that one language is just like another language,—that every language has all the ideas, turns of thought, delicacies of expression, figures, associations, abstractions, points of view, which every other language has. Now, as far as regards Science, it is true that all languages are pretty much alike for the purposes of Science; but even in this respect some are more suitable than others, which have to coin words, or to borrow them, in order to express scientific ideas. But if languages are not all equally adapted even to furnish symbols for

those universal and eternal truths in which Science consists, how can they reasonably be expected to be all equally rich, equally forcible, equally musical, equally exact, equally happy in expressing the idiosyncratic peculiarities of thought of some original and fertile mind, who has availed himself of one of them? A great author takes his native language, masters it, partly throws himself into it, partly moulds and adapts it, and pours out his multitude of ideas through the variously ramified and delicately minute channels of expression which he has found or framed:—does it follow that this his personal presence (as it may be called) can forthwith be transferred to every other language under the sun? Then may we reasonably maintain that Beethoven's *piano* music is not really beautiful, because it cannot be played on the hurdy-gurdy. Were not this astonishing doctrine maintained by persons far superior to the writer whom I have selected for animadversion, I should find it difficult to be patient under a gratuitous extravagance. It seems that a really great author must admit of translation, and that we have a test of his excellence when he reads to advantage in a foreign language as well as in his own. Then Shakspeare *is* a genius because he can be translated into German, and *not* a genius because he cannot be translated into French. Then the multiplication-table

is the most gifted of all conceivable compositions, because it loses nothing by translation, and can hardly be said to belong to any one language whatever. Whereas I should rather have conceived that, in proportion as ideas are novel and recondite, they would be difficult to put into words, and that the very fact of their having insinuated themselves into one language would diminish the chance of that happy accident being repeated in another. In the language of savages you can hardly express any idea or act of the intellect at all: is the tongue of the Hottentot or Esquimaux to be made the measure of the genius of Plato, Pindar, Tacitus, St. Jerome, Dante, or Cervantes?

Let us recur, I say, to the illustration of the Fine Arts. I suppose you can express ideas in painting which you cannot express in sculpture; and the more an artist is of a painter, the less he is likely to be of a sculptor. The more he commits his genius to the methods and conditions of his own art, the less he will be able to throw himself into the circumstances of another. Is the genius of Fra Angelico, of Francia, or of Raffaelle disparaged by the fact that he was able to do that in colors which no man that ever lived, which no Angel, could achieve in wood? Each of the Fine Arts has its own subject-matter; from the nature of the case you can do in one what you cannot do in another; you can do in painting what you can-

not do in carving; you can do in oils what you cannot do in fresco; you can do in marble what you cannot do in ivory; you can do in wax what you cannot do in bronze. Then, I repeat, applying this to the case of languages, why should not genius be able to do in Greek what it cannot do in Latin? and why are its Greek and Latin works defective because they will not turn into English? That genius, of which we are speaking, did not make English; it did not make all languages, present, past, and future; it did not make the laws of *any* language: why is it to be judged of by that in which it had no part, over which it has no control?

And now we are naturally brought on to our third point, which is on the characteristics of Holy Scripture as compared with profane literature. Hitherto we have been concerned with the doctrine of these writers, *viz.*, that style is an *extra*, that it is a mere artifice, and that hence it cannot be translated; now we come to their fact, *viz.*, that Scripture has no such artificial style, and that Scripture can easily be translated. Surely their fact is as untenable as their doctrine.

Scripture easy of translation! then why have there been so few good translators? why is it that there has been such great difficulty in combining the two necessary qualities, fidelity to the original and purity in the adopted vernacular? why is it that

the authorized versions of the Church are often so inferior to the original as compositions, except that the Church is bound above all things to see that the version is doctrinally correct, and in a difficult problem is obliged to put up with defects in what is of secondary importance, provided she secure what is of first? If it were so easy to transfer the beauty of the original to the copy, she would not have been content with her received version in various languages which could be named.

And then in the next place, Scripture not elaborate! Scripture not ornamented in diction, and musical in cadence! Why, consider the Epistle to the Hebrews—where is there in the classics any composition more carefully, more artificially written? Consider the book of Job—is it not a sacred drama, as artistic, as perfect, as any Greek tragedy of Sophocles or Euripides? Consider the Psalter—are there no ornaments, no rhythm, no studied cadences, no responsive members, in that divinely beautiful book? And is it not hard to understand? are not the Prophets hard to understand? is not St. Paul hard to understand? Who can say that these are popular compositions? who can say that they are level at first reading with the understandings of the multitude?

That there are portions indeed of the inspired volume more simple both in style and in meaning, and that these are the more sacred and sublime

passages, as, for instance, parts of the Gospels, I grant at once; but this does not militate against the doctrine I have been laying down. Recollect, Gentlemen, my distinction when I began. I have said Literature is one thing, and that Science is another; that Literature has to do with ideas, and Science with realities; that Literature is of a personal character, that Science treats of what is universal and eternal. In proportion, then, as Scripture excludes the personal coloring of its writers, and rises into the region of pure and mere inspiration, when it ceases in any sense to be the writing of man, of St. Paul or St. John, of Moses or Isaias, then it comes to belong to Science, not Literature. Then it conveys the things of heaven, unseen verities, divine manifestations, and them alone—not the ideas, the feelings, the aspirations, of its human instruments, who, for all that they were inspired and infallible, did not cease to be men. St. Paul's epistles, then, I consider to be literature in a real and true sense, *as* personal, *as* rich in reflection and emotion, as Demosthenes or Euripides; and, without ceasing to be revelations of objective truth, they are expressions of the subjective notwithstanding. On the other hand, portions of the Gospels, of the book of Genesis, and other passages of the Sacred Volume, are of the nature of Science. Such is the beginning of St. John's Gospel, which we read at the end of

Mass. Such is the Creed. I mean, passages such as these are the mere enunciation of eternal things, without (so to say) the medium of any human mind transmitting them to us. The words used have the grandeur, the majesty, the calm, unimpassioned beauty of Science; they are in no sense Literature, they are in no sense personal; and therefore they are easy to apprehend, and easy to translate.

Did time admit I could show you parallel instances of what I am speaking of in the Classics, inferior to the inspired word in proportion as the subject-matter of the classical authors is immensely inferior to the subjects treated of in Scripture—but parallel, inasmuch as the classical author or speaker ceases for the moment to have to do with Literature, as speaking of things objectively, and rises to the serene sublimity of Science. But I should be carried too far if I began.

I shall, then, merely sum up what I have said, and come to a conclusion. Reverting, then, to my original question, what is the meaning of Letters, as contained, Gentlemen, in the designation of your Faculty, I have answered, that by Letters or Literature is meant the expression of thought in language, where by "thought" I mean the ideas, feelings, views, reasonings, and other operations of the human mind. And the Art of Letters is the method by which a speaker or writer brings out in

words, worthy of his subject, and sufficient for his audience or readers, the thoughts which impress him. Literature, then, is of a personal character; it consists in the enunciations and teachings of those who have a right to speak as representatives of their kind, and in whose words their brethren find an interpretation of their own sentiments, a record of their own experience, and a suggestion for their own judgments. A great author, Gentlemen, is not one who merely has a *copia verborum*,[1] whether in prose or verse, and can, as it were, turn on at his will any number of splendid phrases and swelling sentences; but he is one who has something to say and knows how to say it. I do not claim for him, as such, any great depth of thought, or breadth of view, or philosophy, or sagacity, or knowledge of human nature, or experience of human life, though these additional gifts he may have, and the more he has of them the greater he is; but I ascribe to him, as his characteristic gift, in a large sense, the faculty of Expression. He is master of the two-fold Logos, the thought and the word, distinct, but inseparable from each other. He may, if so be, elaborate his composition, or he may pour out his improvisations, but in either case he has but one aim, which he keeps steadily before him, and is conscientious and single-minded in fulfilling. That aim is to give forth what he

[1] A wide vocabulary.

has within him; and from his very earnestness it comes to pass that, whatever be the splendor of his diction or the harmony of his periods, he has with him the charm of an incommunicable simplicity. Whatever be his subject, high or low, he treats it suitably and for its own sake. If he is a poet, "nil molitur *ineptè*." [1] If he is an orator, then too he speaks, not only "distinctè" and "splendidè," but also "*aptè*." [2] His page is the lucid mirror of his mind and life—

> Quo fit, ut omnis
> Votiva pateat veluti descripta tabella
> Vita senis.[3]

He writes passionately, because he feels keenly; forcibly, because he conceives vividly; he sees too clearly to be vague; he is too serious to be otiose; he can analyze his subject, and therefore he is rich; he embraces it as a whole and in its parts, and therefore he is consistent; he has a firm hold of it, and therefore he is luminous. When his imagination wells up, it overflows in ornament; when his heart is touched, it thrills along his verse. He always has the right word for the right idea, and never a word too much. If he is brief, it is because few words suffice; when he is lavish of

[1] He is never inept.

[2] *Distinctè,* distinctly; *splendidè,* nobly; *aptè,* aptly.

[3] So that all the life of the old poet is disclosed as if it were painted on a votive tablet.

them, still each word has its mark, and aids, not embarrasses, the vigorous march of his elocution. He expresses what all feel, but all cannot say; and his sayings pass into proverbs among his people, and his phrases become household words and idioms of their daily speech, which is tessellated with the rich fragments of his language, as we see in foreign lands the marbles of Roman grandeur worked into the walls and pavements of modern palaces.

Such pre-eminently is Shakspeare among ourselves; such pre-eminently Virgil among the Latins; such in their degree are all those writers who in every nation go by the name of Classics. To particular nations they are necessarily attached from the circumstance of the variety of tongues, and the peculiarities of each; but so far they have a catholic and ecumenical character, that what they express is common to the whole race of man, and they alone are able to express it.

If then the power of speech is a gift as great as any that can be named,—if the origin of language is by many philosophers even considered to be nothing short of divine,—if by means of words the secrets of the heart are brought to light, pain of soul is relieved, hidden grief is carried off, sympathy conveyed, counsel imparted, experience recorded, and wisdom perpetuated,—if by great authors the many are drawn up into unity, na-

tional character is fixed, a people speaks, the past and the future, the East and the West are brought into communication with each other,—if such men are, in a word, the spokesmen and prophets of the human family,—it will not answer to make light of Literature or to neglect its study; rather we may be sure that, in proportion as we master it in whatever language, and imbibe its spirit, we shall ourselves become in our own measure the ministers of like benefits to others, be they many or few, be they in the obscurer or the more distinguished walks of life,—who are united to us by social ties, and are within the sphere of our personal influence.

BOOKS[1]

RALPH WALDO EMERSON

It is easy to accuse books, and bad ones are easily found; and the best are but records, and not the things recorded; and certainly there is dilettanteism enough, and books that are merely neutral and do nothing for us. In Plato's *Gorgias*, Socrates says: "The shipmaster walks in a modest garb near the sea, after bringing his passengers from Ægina or from Pontus, not thinking he has done anything extraordinary, and certainly knowing that his passengers are the same, and in no respect better than when he took them on board." So it is with books, for the most part: they work no redemption in us. The bookseller might certainly know that his customers are in no respect better for the purchase and consumption of his wares. The volume is dear at a dollar; and, after reading to weariness the lettered backs, we leave the shop with a sigh, and learn, as I did without surprise, of a surly bank-director, that

[1] Originally published in the *Atlantic Monthly*, January, 1858; later included in the volume *Society and Solitude*.

in bank-parlors they estimate all stocks of this kind as rubbish.

But it is not less true that there are books which are of that importance in a man's private experience, as to verify for him the fables of Cornelius Agrippa,[1] of Michael Scott,[2] or of the old Orpheus of Thrace,—books which take rank in our life with parents and lovers and passionate experiences, so medicinal, so stringent, so revolutionary, so authoritative,—books which are the work and the proof of faculties so comprehensive, so nearly equal to the world which they paint, that, though one shuts them with meaner ones, he feels his exclusion from them to accuse his way of living.

Consider what you have in the smallest chosen library. A company of the wisest and wittiest men that could be picked out of all civil countries, in a thousand years, have set in best order the results of their learning and wisdom. The men themselves were hid and inaccessible, solitary, impatient of interruption, fenced by etiquette; but the thought which they did not uncover to their bosom friend is here written out in transparent words to us, the strangers of another age.

[1] German scholar, soldier, and, by common reputation, magician (1486-1535).

[2] Scottish mathematician and astrologer, reputed a wizard, to whom various wonderful exploits were attributed by popular belief (1175?-1232).

We owe to books those general benefits which come from high intellectual action. Thus, I think, we often owe to them the perception of immortality. They impart sympathetic activity to the moral power. Go with mean people, and you think life is mean. Then read Plutarch, and the world is a proud place, peopled with men of positive quality, with heroes and demigods standing around us, who will not let us sleep. Then they address the imagination: only poetry inspires poetry. They become the organic culture of the time. College education is the reading of certain books which the common sense of all scholars agrees will represent the science already accumulated. If you know that,—for instance, in geometry, if you have read Euclid and Laplace,—your opinion has some value; if you do not know these, you are not entitled to give any opinion on the subject. Whenever any sceptic or bigot claims to be heard on the questions of intellect and morals, we ask if he is familiar with the books of Plato, where all his pert objections have once for all been disposed of. If not, he has no right to our time. Let him go and find himself answered there.

Meantime the colleges, whilst they provide us with libraries, furnish no professor of books; and, I think, no chair is so much wanted. In a library we are surrounded by many hundreds of dear friends, but they are imprisoned by an enchanter in

these paper and leathern boxes; and though they know us, and have been waiting two, ten, or twenty centuries for us,—some of them,—and are eager to give us a sign, and unbosom themselves, it is the law of their limbo that they must not speak until spoken to; and as the enchanter has dressed them, like battalions of infantry, in coat and jacket of one cut, by the thousand and ten thousand, your chance of hitting on the right one is to be computed by the arithmetical rule of Permutation and Combination,—not a choice out of three caskets, but out of half a million caskets all alike. But it happens, in our experience, that in this lottery there are at least fifty or a hundred blanks to a prize. It seems, then, as if some charitable soul, after losing a great deal of time among the false books, and alighting upon a few true ones which made him happy and wise, would do a right act in naming those which have been bridges or ships to carry him safely over dark morasses and barren oceans, into the heart of sacred cities, into palaces and temples. This would be best done by those great masters of books who from time to time appear,—the Fabricii, the Seldens, Magliabecchis, Scaligers, Mirandolas, Bayles, Johnsons, whose eyes sweep the whole horizon of learning. But private readers, reading purely for love of the book, would serve us by leaving each the shortest note of what he found.

There are books; and it is practicable to read them, because they are so few. We look over with a sigh the monumental libraries of Paris, of the Vatican, and the British Museum. In 1858, the number of printed books in the Imperial Library at Paris was estimated at eight hundred thousand volumes, with an annual increase of twelve thousand volumes; so that the number of printed books extant to-day may easily exceed a million. It is easy to count the number of pages which a diligent man can read in a day, and the number of years which human life in favorable circumstances allows to reading; and to demonstrate that, though he should read from dawn till dark, for sixty years, he must die in the first alcoves. But nothing can be more deceptive than this arithmetic, where none but a natural method is really pertinent. I visit occasionally the Cambridge Library, and I can seldom go there without renewing the conviction that the best of it all is already within the four walls of my study at home. The inspection of the catalogue brings me continually back to the few standard writers who are on every private shelf; and to these it can afford only the most slight and casual additions. The crowds and centuries of books are only commentary and elucidation, echoes and weakeners of these few great voices of Time.

The best rule of reading will be a method from

Nature, and not a mechanical one of hours and pages. It holds each student to a pursuit of his native aim, instead of a desultory miscellany. Let him read what is proper to him, and not waste his memory on a crowd of mediocrities. As whole nations have derived their culture from a single book,—as the Bible has been the literature as well as the religion of large portions of Europe, —as Hafiz was the eminent genius of the Persians, Confucius of the Chinese, Cervantes of the Spaniards; so, perhaps, the human mind would be a gainer, if all the secondary writers were lost,— say, in England, all but Shakspeare, Milton, and Bacon,—through the profounder study so drawn to those wonderful minds. With this pilot of his own genius, let the student read one, or let him read many, he will read advantageously. Dr. Johnson said: "Whilst you stand deliberating which book your son shall read first, another boy has read both: read anything five hours a day, and you will soon be learned."

Nature is much our friend in this matter. Nature is always clarifying her water and her wine. No filtration can be so perfect. She does the same thing by books as by her gases and plants. There is always a selection in writers, and then a selection from the selection. In the first place, all books that get fairly into the vital air of the world were written by the successful class, by the

affirming and advancing class, who utter what tens of thousands feel though they cannot say. There has already been a scrutiny and choice from many hundreds of young pens, before the pamphlet or political chapter which you read in a fugitive journal comes to your eye. All these are young adventurers, who produce their performance to the wise ear of Time, who sits and weighs, and, ten years hence, out of a million of pages reprints one. Again, it is judged, it is winnowed by all the winds of opinion, and what terrific selection has not passed on it before it can be reprinted after twenty years,—and reprinted after a century!—it is as if Minos and Rhadamanthus had indorsed the writing. 'Tis therefore an economy of time to read old and famed books. Nothing can be preserved which is not good; and I know beforehand that Pindar, Martial, Terence, Galen, Kepler, Galileo, Bacon, Erasmus, More, will be superior to the average intellect. In contemporaries, it is not so easy to distinguish betwixt notoriety and fame.

Be sure, then, to read no mean books. Shun the spawn of the press on the gossip of the hour. Do not read what you shall learn, without asking, in the street and the train. Dr. Johnson said, "he always went into stately shops;" and good travellers stop at the best hotels; for, though they cost more, they do not cost much more, and there is

the good company and the best information. In like manner, the scholar knows that the famed books contain, first and last, the best thoughts and facts. Now and then, by rarest luck, in some foolish Grub Street is the gem we want. But in the best circles is the best information. If you should transfer the amount of your reading day by day from the newspaper to the standard authors—— But who dare speak of such a thing?

The three practical rules, then, which I have to offer, are—1. Never read any book that is not a year old. 2. Never read any but famed books. 3. Never read any but what you like; or, in Shakspeare's phrase—

> No profit goes where is no pleasure ta'en:
> In brief, sir, study what you most affect.

Montaigne says, "Books are a languid pleasure;" but I find certain books vital and spermatic, not leaving the reader what he was: he shuts the book a richer man. I would never willingly read any others than such. And I will venture, at the risk of inditing a list of old primers and grammars, to count the few books which a superficial reader must thankfully use.

Of the old Greek books, I think there are five which we cannot spare: 1. Homer, who in spite of Pope and all the learned uproar of centuries, has really the true fire, and is good for simple minds,

is the true and adequate germ of Greece, and occupies that place as history which nothing can supply. It holds through all literature, that our best history is still poetry. It is so in Hebrew, in Sanskrit, and in Greek. English history is best known through Shakspeare; how much through Merlin, Robin Hood, and the Scottish ballads! —the German, through the Nibelungenlied,—the Spanish, through the Cid. Of Homer, George Chapman's is the heroic translation, though the most literal prose version is the best of all. 2. Herodotus, whose history contains inestimable anecdotes, which brought it with the learned into a sort of disesteem; but in these days, when it is found that what is most memorable of history is a few anecdotes, and that we need not be alarmed though we should find it not dull, it is regaining credit. 3. Æschylus, the grandest of the three tragedians, who has given us under a thin veil the first plantation of Europe. The *Prometheus* is a poem of the like dignity and scope as the Book of Job, or the Norse *Edda*. 4. Of Plato I hesitate to speak, lest there should be no end. You find in him that which you have already found in Homer, now ripened to thought,—the poet converted to a philosopher, with loftier strains of musical wisdom than Homer reached; as if Homer were the youth, and Plato the finished man; yet with no less security of bold and perfect song,

when he cares to use it, and with some harpstrings fetched from a higher heaven. He contains the future, as he came out of the past. In Plato, you explore modern Europe in its causes and seed,—all that in thought, which the history of Europe embodies or has yet to embody. The well-informed man finds himself anticipated. Plato is up with him too. Nothing has escaped him. Every new crop in the fertile harvest of reform, every fresh suggestion of modern humanity, is there. If the student wish to see both sides, and justice done to the man of the world, pitiless exposure of pedants, and the supremacy of truth and the religious sentiment, he shall be contented also. Why should not young men be educated on this book? It would suffice for the tuition of the race,—to test their understanding, and to express their reason. Here is that which is so attractive to all men,—the literature of aristocracy shall I call it?—the picture of the best persons, sentiments, and manners, by the first master, in the best times,—portraits of Pericles, Alcibiades, Crito, Prodicus, Protagoras, Anaxagoras, and Socrates, with the lovely background of the Athenian and suburban landscape. Or who can over-estimate the images with which Plato has enriched the minds of men, and which pass like bullion in the currency of all nations? Read the *Phædo*, the *Protagoras*, the *Phædrus*, the *Timæus*, the *Republic*, and the *Apol-*

ogy of Socrates. 5. Plutarch cannot be spared from the smallest library; first, because he is so readable, which is much; then, that he is medicinal and invigorating. The lives of Cimon, Lycurgus, Alexander, Demosthenes, Phocion, Marcellus, and the rest, are what history has of best. But this book has taken care of itself, and the opinion of the world is expressed in the innumerable cheap editions, which make it as accessible as a newspaper. But Plutarch's *Morals* is less known, and seldom reprinted. Yet such a reader as I am writing to can as ill spare it as the *Lives.* He will read in it the essays "On the Dæmon of Socrates," "On Isis and Osiris," "On Progress in Virtue," "On Garrulity," "On Love," and thank anew the art of printing, and the cheerful domain of ancient thinking. Plutarch charms by the facility of his associations; so that it signifies little where you open his book, you find yourself at the Olympian tables. His memory is like the Isthmian Games, where all that was excellent in Greece was assembled, and you are stimulated and recruited by lyric verses, by philosophic sentiments, by the forms and behavior of heroes, by the worship of the gods, and by the passing of fillets, parsley and laurel wreaths, chariots, armor, sacred cups, and utensils of sacrifice. An inestimable trilogy of ancient social pictures are the three "Banquets" respectively of Plato, Xenophon, and Plutarch.

Plutarch's has the least approach to historical accuracy; but the meeting of the Seven Wise Masters is a charming portraiture of ancient manners and discourse, and is as clear as the voice of a fife, and entertaining as a French novel. Xenophon's delineation of Athenian manners is an accessory to Plato, and supplies traits of Socrates; whilst Plato's has merits of every kind,—being a repertory of the wisdom of the ancients on the subject of love,—a picture of a feast of wits, not less descriptive than Aristophanes,—and, lastly, containing that ironical eulogy of Socrates which is the source from which all the portraits of that philosopher current in Europe have been drawn.

Of course a certain outline should be obtained of Greek history, in which the important moments and persons can be rightly set down; but the shortest is the best, and if one lacks stomach for Mr. Grote's voluminous annals, the old slight and popular summary of Goldsmith or of Gillies will serve. The valuable part is the age of Pericles and the next generation. And here we must read the *Clouds* of Aristophanes, and what more of that master we gain appetite for, to learn our way in the streets of Athens, and to know the tyranny of Aristophanes, requiring more genius and sometimes not less cruelty than belonged to the official commanders. Aristophanes is now very accessible, with much valuable commentary, through the

labors of Mitchell and Cartwright. An excellent popular book is J. A. St. John's *Ancient Greece;* the *Life and Letters* of Niebuhr, even more than his Lectures, furnish leading views; and Winckelmann, a Greek born out of due time, has become essential to an intimate knowledge of the Attic genius. The secret of the recent histories in German and in English is the discovery, owed first to Wolff, and later to Boeckh, that the sincere Greek history of that period must be drawn from Demosthenes, especially from the business orations, and from the comic poets.

If we come down a little by natural steps from the master to the disciples, we have, six or seven centuries later, the Platonists,—who also cannot be skipped,—Plotinus, Porphyry, Proclus, Synesius, Jamblichus. Of Jamblichus the Emperor Julian said, "that he was posterior to Plato in time, not in genius." Of Plotinus, we have eulogies by Porphyry and Longinus, and the favor of the Emperor Gallienus,—indicating the respect he inspired among his contemporaries. If any one who had read with interest the *Isis and Osiris* of Plutarch should then read a chapter called "Providence," by Synesius, translated into English by Thomas Taylor, he will find it one of the majestic remains of literature, and, like one walking in the noblest of temples, will conceive new gratitude to his fellow-men, and a new estimate of their nobility.

The imaginative scholar will find few stimulants to his brain like these writers. He has entered the Elysian fields; and the grand and pleasing figures of gods and demons and demoniacal men, of the "azonic" and the "aquatic gods," demons with fulgid eyes, and all the rest of the Platonic rhetoric, exalted a little under the African sun, sail before his eyes. The acolyte has mounted the tripod over the cave at Delphi; his heart dances, his sight is quickened. These guides speak of the gods with such depth and with such pictorial details, as if they had been bodily present at the Olympian feasts. The reader of these books makes new acquaintance with his own mind; new regions of thought are opened. Jamblichus's *Life of Pythagoras* works more directly on the will than the others; since Pythagoras was eminently a practical person, the founder of a school of ascetics and socialists, a planter of colonies, and nowise a man of abstract studies alone.

The respectable and sometimes excellent translations of Bohn's Library have done for literature what railroads have done for internal intercourse. I do not hesitate to read all the books I have named, and all good books, in translations. What is really best in any book is translatable,—any real insight or broad human sentiment. Nay, I observe that, in our Bible, and other books of lofty moral tone, it seems easy and inevitable to

render the rhythm and music of the original into phrases of equal melody. The Italians have a fling at translators,—*i traditori traduttori;* [1] but I thank them. I rarely read any Latin, Greek, German, Italian, sometimes not a French book in the original, which I can procure in a good version. I like to be beholden to the great metropolitan English speech, the sea which receives tributaries from every region under heaven. I should as soon think of swimming across Charles River when I wish to go to Boston, as of reading all my books in originals, when I have them rendered for me in my mother-tongue.

For history there is great choice of ways to bring the student through early Rome. If he can read Livy, he has a good book; but one of the short English compends, some Goldsmith or Ferguson, should be used, that will place in the cycle the bright stars of Plutarch. The poet Horace is the eye of the Augustan age; Tacitus, the wisest of historians; and Martial will give him Roman manners—and some very bad ones—in the early days of the Empire: but Martial must be read, if read at all, in his own tongue. These will bring him to Gibbon, who will take him in charge, and convey him with abundant entertainment down—with notice of all remarkable objects on the way—through fourteen hundred years of time. He

[1] "Translators [are] traitors."

cannot spare Gibbon, with his vast reading,—with such wit and continuity of mind, that, though never profound, his book is one of the conveniences of civilization, like the new railroad from ocean to ocean,—and, I think, will be sure to send the reader to his *Memoirs of Himself*, and the *Extracts from my Journal*, and *Abstracts of my Readings*, which will spur the laziest scholar to emulation of his prodigious performance.

Now having our idler safe down as far as the fall of Constantinople in 1453, he is in very good courses; for here are trusty hands waiting for him. The cardinal facts of European history are soon learned. There is Dante's poem, to open the Italian Republics of the Middle Age; Dante's *Vita Nuova*, to explain Dante and Beatrice; and Boccaccio's *Life of Dante*,—a great man to describe a greater. To help us, perhaps a volume or two of M. Sismondi's *Italian Republics* will be as good as the entire sixteen. When we come to Michael Angelo, his Sonnets and Letters must be read, with his Life by Vasari, or, in our day, by Herman Grimm. For the Church, and the Feudal Institution, Mr. Hallam's *Middle Ages* will furnish, if superficial, yet readable and conceivable outlines.

The *Life of the Emperor Charles V.*, by the useful Robertson, is still the key of the following age. Ximenes, Columbus, Loyola, Luther, Erasmus, Melanchthon, Francis I., Henry VIII., Elizabeth,

and Henry IV. of France, are his contemporaries. It is a time of seeds and expansions, whereof our recent civilization is the fruit.

If now the relations of England to European affairs bring him to British ground, he is arrived at the very moment when modern history takes new proportions. He can look back for the legends and mythology to the *Younger Edda*, and the *Heimskringla* of Snorro Sturleson, to Mallet's *Northern Antiquities*, to Ellis's *Metrical Romances*, to Asser's *Life of Alfred* and Venerable Bede, and to the researches of Sharon Turner and Palgrave. Hume will serve him for an intelligent guide, and in the Elizabethan era he is at the richest period of the English mind, with the chief men of action and of thought which that nation has produced, and with a pregnant future before him. Here he has Shakspeare, Spenser, Sidney, Raleigh, Bacon, Chapman, Jonson, Ford, Beaumont and Fletcher, Herbert, Donne, Herrick; and Milton, Marvell, and Dryden, not long after.

In reading history, he is to prefer the history of individuals. He will not repent the time he gives to Bacon,—not if he read the *Advancement of Learning*, the *Essays*, the *Novum Organum*, the *History of Henry VII.*, and then all the *Letters* (especially those to the Earl of Devonshire, explaining the Essex business), and all but his *Apophthegms*.

The task is aided by the strong mutual light which these men shed on each other. Thus, the works of Ben Jonson are a sort of hoop to bind all these fine persons together, and to the land to which they belong. He has written verses to or on all his notable contemporaries; and what with so many occasional poems, and the portrait sketches in his *Discoveries*, and the gossiping record of his opinions in his conversations with Drummond of Hawthornden, he has really illustrated the England of his time, if not to the same extent, yet much in the same way, as Walter Scott has celebrated the persons and places of Scotland. Walton, Chapman, Herrick, and Sir Henry Wotton, write also to the times.

Among the best books are certain *Autobiographies:* as, St. Augustine's Confessions; Benvenuto Cellini's Life; Montaigne's Essays; Lord Herbert of Cherbury's Memoirs; Memoirs of the Cardinal de Retz; Rousseau's Confessions; Linnæus's Diary; Gibbon's, Hume's, Franklin's, Burns's, Alfieri's, Goethe's, and Haydon's Autobiographies.

Another class of books closely allied to these, and of like interest, are those which may be called *Table-Talks:* of which the best are Saadi's Gulistan; Luther's Table-Talk; Aubrey's Lives; Spence's Anecdotes; Selden's Table-Talk; Boswell's Life of Johnson; Eckermann's Conversations

with Goethe; Coleridge's Table-Talk; and Hazlitt's Life of Northcote.

There is a class whose value I should designate as *Favorites:* such as Froissart's Chronicles; Southey's Chronicle of the Cid; Cervantes; Sully's Memoirs; Rabelais; Montaigne; Izaak Walton; Evelyn; Sir Thomas Browne; Aubrey; Sterne; Horace Walpole; Lord Clarendon; Doctor Johnson; Burke, shedding floods of light on his times; Lamb; Landor; and De Quincey;—a list, of course, that may easily be swelled, as dependent on individual caprice. Many men are as tender and irritable as lovers in reference to these predilections. Indeed, a man's library is a sort of harem, and I observe that tender readers have a great pudency in showing their books to a stranger.

The annals of bibliography afford many examples of the delirious extent to which book-fancying can go, when the legitimate delight in a book is transferred to a rare edition or to a manuscript. This mania reached its height about the beginning of the present century. For an autograph of Shakspeare one hundred and fifty-five guineas were given. In May, 1812, the library of the Duke of Roxburgh was sold. The sale lasted forty-two days,—we abridge the story from Dibdin,—and among the many curiosities was a copy of Boccaccio, published by Valdarfer, at Venice, in 1471, the only perfect copy of this edition.

Among the distinguished company which attended the sale were the Duke of Devonshire, Earl Spencer, and the Duke of Marlborough, then Marquis of Blandford. The bid stood at five hundred guineas. "A thousand guineas," said Earl Spencer. "And ten," added the Marquis. You might hear a pin drop. All eyes were bent on the bidders. Now they talked apart, now ate a biscuit, now made a bid, but without the least thought of yielding one to the other. But to pass over some details,—the contest proceeded until the Marquis said, "Two thousand pounds." The Earl Spencer bethought him like a prudent general of useless bloodshed and waste of powder, and had paused a quarter of a minute, when Lord Althorp, with long steps, came to his side, as if to bring his father a fresh lance to renew the fight. Father and son whispered together, and Earl Spencer exclaimed, "Two thousand two hundred and fifty pounds!" An electric shock went through the assembly. "And ten," quietly added the Marquis. There ended the strife. Ere Evans let the hammer fall, he paused; the ivory instrument swept the air; the spectators stood dumb, when the hammer fell. The stroke of its fall sounded on the farthest shores of Italy. The tap of that hammer was heard in the libraries of Rome, Milan, and Venice. Boccaccio stirred in his sleep of five hundred years, and M. Van Praet groped

in vain among the royal alcoves in Paris, to detect a copy of the famed Valdarfer Boccaccio.

Another class I distinguish by the term *Vocabularies*. Burton's *Anatomy of Melancholy* is a book of great learning. To read it is like reading in a dictionary. 'Tis an inventory to remind us how many classes and species of facts exist, and, in observing into what strange and multiplex by-ways learning has strayed, to infer our opulence. Neither is a dictionary a bad book to read. There is no cant in it, no excess of explanation, and it is full of suggestion,—the raw material of possible poems and histories. Nothing is wanting but a little shuffling, sorting, ligature, and cartilage. Out of a hundred examples, Cornelius Agrippa *On the Vanity of Arts and Sciences* is a specimen of that scribatiousness which grew to be the habit of the gluttonous readers of his time. Like the modern Germans, they read a literature while other mortals read a few books. They read voraciously, and must disburden themselves; so they take any general topic, as, Melancholy, or Praise of Science, or Praise of Folly, and write and quote without method or end. Now and then out of that affluence of their learning comes a fine sentence from Theophrastus, or Seneca, or Boëthius, but no high method, no inspiring efflux. But one cannot afford to read for a few sentences; they are good only as strings of suggestive words.

There is another class, more needful to the present age, because the currents of custom run now in another direction, and leave us dry on this side;—I mean the *Imaginative*. A right metaphysics should do justice to the co-ordinate powers of Imagination, Insight, Understanding, and Will. Poetry, with its aids of Mythology and Romance, must be well allowed for an imaginative creature. Men are ever lapsing into a beggarly habit, wherein everything that is not ciphering—that is, which does not serve the tyrannical animal—is hustled out of sight. Our orators and writers are of the same poverty, and, in this rag-fair, neither the Imagination, the great awakening power, nor the Morals, creative of genius and of men, are addressed. But though orator and poet be of this hunger party, the capacities remain. We must have symbols. The child asks you for a story, and is thankful for the poorest. It is not poor to him, but radiant with meaning. The man asks for a novel,—that is, asks leave for a few hours to be a poet, and to paint things as they ought to be. The youth asks for a poem. The very dunces wish to go to the theatre. What private heavens can we not open, by yielding to all the suggestion of rich music! We must have idolatries, mythologies, —some swing and verge for the creative power lying coiled and cramped here, driving ardent natures to insanity and crime if it do not find vent.

Without the great arts which speak to the sense of beauty, a man seems to me a poor, naked, shivering creature. These are his becoming draperies, which warm and adorn him. Whilst the prudential and economical tone of society starves the imagination, affronted Nature gets such indemnity as she may. The novel is that allowance and frolic the imagination finds. Everything else pins it down, and men flee for redress to Byron, Scott, Disraeli, Dumas, Sand, Balzac, Dickens, Thackeray, and Reade. Their education is neglected; but the circulating-library and the theatre, as well as the trout-fishing, the Notch Mountains, the Adirondack country, the tour to Mont Blanc, to the White Hills, and the Ghauts, make such amends as they can.

The imagination infuses a certain volatility and intoxication. It has a flute which sets the atoms of our frame in a dance, like planets; and, once so liberated, the whole man reeling drunk to the music, they never quite subside to their old stony state. But what is the imagination? Only an arm or weapon of the interior energy; only the precursor of the reason. And books that treat the old pedantries of the world, our times, places, professions, customs, opinions, histories, with a certain freedom, and distribute things, not after the usages of America and Europe, but after the laws of right reason, and with as daring a

freedom as we use in dreams, put us on our feet again, enable us to form an original judgment of our duties, and suggest new thoughts for to-morrow.

Lucrezia Floriani, *Le Péché de M. Antoine*, *Jeanne*, and *Consuelo*, of George Sand, are great steps from the novel of one termination, which we all read twenty years ago. Yet how far off from life and manners and motives the novel still is! Life lies about us dumb; the day, as we know it, has not yet found a tongue. These stories are to the plots of real life what the figures in *La Belle Assemblée*, which represent the fashion of the month, are to portraits. But the novel will find the way to our interiors one day, and will not always be the novel of costume merely. I do not think it inoperative now. So much novel-reading cannot leave the young men and maidens untouched; and doubtless it gives some ideal dignity to the day. The young study noble behavior; and as the player in *Consuelo* insists that he and his colleagues on the boards have taught princes the fine etiquette and strokes of grace and dignity which they practice with so much effect in their villas and among their dependents, so I often see traces of the Scotch or the French novel in the courtesy and brilliancy of young midshipmen, collegians, and clerks. Indeed, when one observes how ill and ugly people make their loves and quar-

rels, 'tis pity they should not read novels a little more, to import the fine generosities, and the clear, firm conduct, which are as becoming in the unions and separations which love effects under shingle roofs as in palaces and among illustrious personages.

In novels the most serious questions are beginning to be discussed. What made the popularity of *Jane Eyre*, but that a central question was answered in some sort? The question there answered in regard to a vicious marriage will always be treated according to the habit of the party. A person of commanding individualism will answer it as Rochester does,—as Cleopatra, as Milton, as George Sand do,—magnifying the exception into a rule, dwarfing the world into an exception. A person of less courage, that is, of less constitution, will answer as the heroine does,—giving way to fate, to conventionalism, to the actual state and doings of men and women.

For the most part, our novel-reading is a passion for results. We admire parks, and high-born beauties, and the homage of drawing-rooms, and parliaments. They make us sceptical, by giving prominence to wealth and social position.

I remember when some peering eyes of boys discovered that the oranges hanging on the boughs of an orange-tree in a gay piazza were tied to the twigs by thread. I fear 'tis so with the novelist's

prosperities. Nature has a magic by which she fits the man to his fortunes, by making them the fruit of his character. But the novelist plucks this event here, and that fortune there, and ties them rashly to his figures, to tickle the fancy of his readers with a cloying success, or scare them with shocks of tragedy. And so, on the whole, 'tis a juggle. We are cheated into laughter or wonder by feats which only oddly combine acts that we do every day. There is no new element, no power, no furtherance. 'Tis only confectionery, not the raising of new corn. Great is the poverty of their inventions. *She was beautiful, and he fell in love.* Money, and killing, and the Wandering Jew, and persuading the lover that his mistress is betrothed to another,—these are the main-springs: new names, but no new qualities in the men and women. Hence the vain endeavor to keep any bit of this fairy gold, which has rolled like a brook through our hands. A thousand thoughts awoke; great rainbows seemed to span the sky,—a morning among the mountains;—but we close the book, and not a ray remains in the memory of evening. But this passion for romance, and this disappointment, show how much we need real elevations and pure poetry: that which shall show us, in morning and night, in stars and mountains, and in all the plight and circumstance of men, the analogons of our own thoughts, and a

like impression made by a just book and by the face of Nature.

If our times are sterile in genius, we must cheer us with books of rich and believing men who had atmosphere and amplitude about them. Every good fable, every mythology, every biography from a religious age, every passage of love, and even philosophy and science, when they proceed from an intellectual integrity, and are not detached and critical, have the imaginative element. The Greek fables, the Persian History (Firdusi), the *Younger Edda* of the Scandinavians, the *Chronicle of the Cid*, the Poem of Dante, the Sonnets of Michael Angelo, the English drama of Shakspeare, Beaumont and Fletcher, and Ford, and even the prose of Bacon and Milton,—in our time, the Ode of Wordsworth, and the poems and the prose of Goethe, have this enlargement, and inspire hope and generous attempts.

There is no room left,—and yet I might as well not have begun as to leave out a class of books which are the best: I mean the Bibles of the world, or the sacred books of each nation, which express for each the supreme result of their experience. After the Hebrew and Greek Scriptures, which constitute the sacred books of Christendom, these are, the Desatir of the Persians, and the Zoroastrian Oracles; the Vedas and Laws of Menu; the Upanishads, the Vishnu Purana, the Bhagvat

Geeta, of the Hindoos; the books of the Buddhists; the *Chinese Classic*, of four books, containing the wisdom of Confucius and Mencius. Also such other books as have acquired a semi-canonical authority in the world as expressing the highest sentiment and hope of nations. Such are the *Hermes Trismegistus*, pretending to be Egyptian remains; the *Sentences* of Epictetus; of Marcus Antoninus; the *Vishnu Sarma* of the Hindoos; the *Gulistan* of Saadi; the *Imitation of Christ*, of Thomas à Kempis; and the *Thoughts* of Pascal.

All these books are the majestic expressions of the universal conscience, and are more to our daily purpose than this year's almanac or this day's newspaper. But they are for the closet, and to be read on the bended knee. Their communications are not to be given or taken with the lips and the end of the tongue, but out of the glow of the cheek, and with the throbbing heart. Friendship should give and take, solitude and time brood and ripen, heroes absorb and enact them. They are not to be held by letters printed on a page, but are living characters translatable into every tongue and form of life. I read them on lichens and bark; I watch them on waves on the beach; they fly in birds, they creep in worms; I detect them in laughter and blushes and eye-sparkles of men and women. These are Scriptures which the

missionary might well carry over prairie, desert, and ocean, to Siberia, Japan, Timbuctoo. Yet he will find that the spirit which is in them journeys faster than he, and greets him on his arrival,—was there already long before him. The missionary must be carried by it, and find it there, or he goes in vain. Is there any geography in these things? We call them Asiatic, we call them primeval; but perhaps that is only optical; for Nature is always equal to herself, and there are as good eyes and ears now in the planet as ever were. Only these ejaculations of the soul are uttered one or a few at a time, at long intervals, and it takes millenniums to make a Bible.

These are a few of the books which the old and the later times have yielded us, which will reward the time spent on them. In comparing the number of good books with the shortness of life, many might well be read by proxy, if we had good proxies; and it would be well for sincere young men to borrow a hint from the French Institute and the British Association, and, as they divide the whole body into sections, each of which sits upon and reports of certain matters confided to it, so let each scholar associate himself to such persons as he can rely on, in a literary club, in which each shall undertake a single work or series for which he is qualified. For example, how attractive is the whole literature of the *Roman de la Rose*, the

Fabliaux,[1] and the *gaie science*[2] of the French Troubadours! Yet who in Boston has time for that? But one of our company shall undertake it, shall study and master it, and shall report on it, as under oath; shall give us the sincere result, as it lies in his mind, adding nothing, keeping nothing back. Another member, meantime, shall as honestly search, sift, and as truly report, on British mythology, the Round Table, the histories of Brut, Merlin, and Welsh poetry; a third on the Saxon Chronicles, Robert of Gloucester, and William of Malmesbury; a fourth, on Mysteries, Early Drama, *Gesta Romanorum*, Collier, and Dyce, and the Camden Society. Each shall give us his grains of gold, after the washing; and every other shall then decide whether this is a book indispensable to him also.

[1] Short metrical tales popular in the Middle Ages, usually comic and satirical.

[2] Literally "gay science,"—the poetry of the troubadours and the trouvères.

THE WORKING OF THE AMERICAN DEMOCRACY[1]

CHARLES WILLIAM ELIOT

I PURPOSE to examine some parts of the experience of the American democracy, with the intention of suggesting the answers to certain theoretical objections which have been urged against democracy in general, and of showing in part what makes the strength of the democratic form of government.

For more than a hundred years there has been among civilized nations a decided set of opinion toward democratic institutions; but in Europe this set has been determined rather by unfavorable experience of despotic and oligarchic forms of government than by any favorable experience of the democratic form. Government by one and government by a few have been tried through many centuries, by different races of men, and under all sorts of conditions; but neither has ever succeeded

[1] Reprinted from *American Contributions to Civilization,* New York, 1907, through the generous permission of the author and of The Century Company. Copyright, 1890, by The Century Company.

—not even in England—in producing a reasonably peaceful, secure, and also happy society. No lesson upon this subject could be more forcible than that which modern Europe teaches. Empires and monarchies, like patriarchies and chieftainships, have doubtless served their turn; but they have signally failed to realize the social ideals —some ancient and some modern in origin— which have taken firm hold of men's minds since the American Revolution. This failure extends through all society, from top to bottom. It is as conspicuous in the moral condition of the upper classes as in the material condition of the lower. Oligarchies call themselves aristocracies; but government by the few has never really been government by the best. Therefore mankind tends to seek the realization of its ideals in broad-based forms of government.

It can hardly be said that Europe has any experience of democracy which is applicable to a modern state. Gallant little Switzerland lives in a mountain fastness, and exists by the sufferance of powerful neighbors, each jealous of the other. No lessons for modern use can be drawn from the transient city democracies of ancient or medieval times. The city as a unit of government organization has gone forever, with the glories of Athens, Rome, and Florence. Throughout this century a beneficent tendency has been manifested toward

the formation of great national units. Witness the expansion of Russia and the United States, the creation of the German empire, the union of Austria, Hungary, and Bohemia, and the unification of Italy. At least, within these great units prevail a common peace and an unrestricted trade. The blessings which result from holding vast territories and multitudes under one national government are so great that none but large governments have any future before them. To succeed, democracy must show itself able to control both territory and population on a continental scale; therefore its methods must be representative—which means that they are necessarily deliberative, and are likely to be conservative and slow. Of such government by the many, Europe has no trustworthy experience, either in ancient or in modern times. The so-called democracies of Greece and Rome were really governments by a small caste of free citizens ruling a multitude of aliens and slaves: hasty and tyrannical themselves, they naturally prepared the way for tyrants. Yet when all the world were slaves, that caste of free citizens was a wonderful invention. France, since the Revolution, has exhibited some fugitive specimens of democratic rule, but has had no stable government of any sort, whether tyranny, oligarchy, or democracy. In short, such experience as Europe has had of so-called democracies—with the exception of admira-

ble Switzerland—is worse than useless; for it is thoroughly misleading, and has misled many acute observers of political phenomena.

In this absence of available European experience, where can mankind look for trustworthy evidence concerning the practical working of democratic institutions? Solely to the United States. The Australasian colonies will before long contribute valuable evidence; but at present their population is small, and their experience is too recent to be of great value to students of comparative politics. Yet it is upon experience, and experience alone, that safe conclusions can be based concerning the merits and the faults of democracy. On politics, speculative writing—even by able men like Sir George Cornewall Lewis [1] and Sir Henry Maine [2]—is as perilous as it is on biology; and prophecy is still more dangerous. To the modern mind, ideal states like Plato's Republic, Sir Thomas More's Utopia, and Saint Augustine's Civitas Dei, are utterly uninteresting—particularly when they rest upon such visionary postulates as community of goods and community of wives and children. The stable state must have its roots in use and wont, in familiar customs and laws, and in the inherited habits of successive generations. But it is only in the United States

[1] English statesman and man of letters (1806-1863).
[2] English jurist and historian (1822-1888).

that a well-rooted democracy upon a great scale has ever existed; and hence the importance of accurate observation and just judgment of the working of American democratic institutions, both political and social. Upon the success of those institutions rest the best hopes of the world.

In discussing some parts of our national experience, I intend to confine myself to moral and intellectual phenomena, and shall have little to say about the material prosperity of the country. The rapid growth of the United States in population, wealth, and everything which constitutes material strength is, indeed, marvelous; but this concomitant of the existence of democratic institutions in a fertile land, rich also in minerals, ores, oil, and gas, has often been dilated upon, and may be dismissed with only two remarks: first, that a great deal of moral vigor has been put into the material development of the United States; and secondly, that wide-spread comfort ought to promote rather than to hinder the civilizing of a people. Sensible and righteous government ought ultimately to make a nation rich; and although this proposition cannot be directly reversed, yet diffused well-being, comfort, and material prosperity establish a fair presumption in favor of the government and the prevailing social conditions under which these blessings have been secured.

The first question I wish to deal with is a fundamental one: How wisely, and by what process, has the American people made up its mind upon public questions of supreme difficulty and importance? Not how will it, or how might it, make up its mind; but how has it made up its mind? It is commonly said that the multitude, being ignorant and untrained, cannot reach so wise a conclusion upon questions of state as the cultivated few; that the wisdom of a mass of men can only be an average wisdom at the best; and that democracy, which in things material levels up, in things intellectual and moral levels down. Even De Tocqueville [1] says that there is a middling standard of knowledge in a democracy, to which some rise and others descend. Let us put these speculative opinions, which have so plausible a sound, in contrast with American facts, and see what conclusions are to be drawn.

The people of this country have had three supreme questions to settle within the last hundred and thirty years: first, the question of independence of Great Britain; secondly, the question of forming a firm federal union; and thirdly, the question of maintaining that union at whatever cost of blood and treasure. In the decision of these

[1] Alexis de Tocqueville (1805-1859), a French statesman and political writer. His best known work is *Democracy in America.*

questions, four generations of men took active part. The first two questions were settled by a population mainly English; but when the third was decided, the foreign admixture was already considerable. That graver or more far-reaching political problems could be presented to any people, it is impossible to imagine. Everybody can now see that in each case the only wise decision was arrived at by the multitude, in spite of difficulties and dangers which many contemporary statesmen and publicists of our own and other lands thought insuperable. It is quite the fashion to laud to the skies the second of these three great achievements of the American democracy; but the creation of the Federal Union, regarded as a wise determination of a multitude of voters, was certainly not more remarkable than the other two. No government—tyranny or oligarchy, despotic or constitutional—could possibly have made wiser decisions or executed them more resolutely, as the event has proved in each of the three cases mentioned.

So much for the wisdom of these great resolves. Now, by what process were they arrived at?

In each case the process was slow, covering many years during which discussion and debate went on in pulpits, legislatures, public meetings, newspapers, and books. The best minds of the country took part in these prolonged debates. Party passions were aroused; advocates on each

side disputed before the people; the authority of recognized political leaders was invoked; public spirit and selfish interest were appealed to; and that vague but powerful sentiment called love of country, felt equally by high and low, stirred men's hearts and lit the intellectual combat with lofty emotion. In presence of such a protracted discussion, a multitude of interested men make up their minds just as one interested man does. They listen, compare what they hear with their own experience, consider the bearings of the question on their own interests, and consult their self-respect, their hopes, and their fears. Not one in a thousand of them could originate, or even state with precision, the arguments he hears; not one in a thousand could give a clear account of his own observations, processes of thought, and motives of action upon the subject,—but the collective judgment is informed and guided by the keener wits and stronger wills, and the collective wisdom is higher and surer in guiding public conduct than that of one mind or of several superior minds uninstructed by million-eyed observation and million-tongued debate.

In all three of the great popular decisions under consideration, most remarkable discernment, patience, and resolution were, as a fact, displayed. If these were the average qualities of the many, then the average mental and moral powers of the multi-

tude suffice for greatest deeds; if they were the qualities of the superior few infused into the many by speech and press, by exhortation, example, and leadership, even then the assertion that the operative opinions of the unlearned mass on questions of state must necessarily be foolish, their honesty only an ordinary honesty, and their sentiments vulgar, falls to the ground. The multitude, it would seem, either can distil essential wisdom from a seething mass of heterogeneous evidence and opinion, or can be inspired, like a single individual, from without and above itself. If the practical wisdom of the multitude in action be attributed to the management or to the influence of a sagacious few, the wise result proves that these leaders were well chosen by some process of natural selection, instead of being designated, as in an oligarchy, by the inheritance of artificial privileges.

It is fair to say that one reason why democratic decisions of great public questions are apt to turn out well, and therefore to seem to posterity to have been wise, is, that the state of the public mind and will is an all-important factor in determining the issue of such questions. Democracy vigorously executing its own purpose demonstrates by the issue its wisdom before the event. Indeed, this is one of the most legitimate and important advantages of the democratic form of government.

There is a limited sense in which it is true that

in the United States the average man predominates; but the political ideas which have predominated in the United States, and therefore in the mind and will of the average man,—equality before the law, national independence, federation, and indissoluble union,—are ideas not of average but of superlative merit. It is also true that the common school and the newspaper echo received opinion, and harp on moral commonplaces. But unfortunately there are many accepted humane opinions and ethical commonplaces which have never yet been embodied in national legislation,—much less in international law,—and which may therefore still be repeated to some advantage. If that comprehensive commonplace, "Ye are all members one of another,"[1] could be realized in international relations, there would be an end of war and industrial isolation.

Experience has shown that democracy must not be expected to decide wisely about things in which it feels no immediate concern. Unless its interests are affected or its sentiments touched, it will not take the pains necessary to arrive at just conclusions. To engage public attention sufficiently to procure legislation is the reformer's chief difficulty in a democracy. Questions of war, peace, or human rights, and questions which concern the national unity, dignity, or honor, win the attention of

[1] See *Ephesians*, iv. 25.

the many. Indeed, the greatest political questions are precisely those in which the many have concern; for they suffer the penalties of discord, war, and public wrong-doing. But it is curiously difficult to secure from multitudes of voters effective dealing with questions which relate merely to taxation, expenditure, administration, trade, or manufactures. On these lesser matters the multitude will not declare itself until evils multiply intolerably. We need not be surprised, however, that the intelligence and judgment of the multitude can be brought into play only when they think their own interests are to be touched. All experience, both ancient and modern, shows that when the few rule, they do not attend to the interests of the many.

I shall next consider certain forms of mental and moral activity which the American democracy demands of hundreds of thousands of the best citizens, but which are without parallel in despotic and oligarchic states. I refer to the widely diffused and ceaseless activity which maintains, first, the immense Federal Union, with all its various subdivisions into States, counties, and towns; secondly, the voluntary system in religion; and thirdly, the voluntary system in the higher instruction.

To have carried into successful practice on a

great scale the federative principle, which binds many semi-independent States into one nation, is a good work done for all peoples. Federation promises to counteract the ferocious quarrelsomeness of mankind, and to abolish the jealousy of trade; but its price in mental labor and moral initiative is high. It is a system which demands not only vital force at the heart of the state, but a diffused vitality in every part. In a despotic government the intellectual and moral force of the whole organism radiates from the central seat of power; in a federal union political vitality must be diffused throughout the whole organism, as animal heat is developed and maintained in every molecule of the entire body. The success of the United States as a federal union has been and is effected by the watchfulness, industry, and public spirit of millions of men who spend in that noble cause the greater part of their leisure, and of the mental force which can be spared from bread-winning occupations. The costly expenditure goes on without ceasing, all over the country, wherever citizens come together to attend to the affairs of the village, town, county, or State. This is the price of liberty and union. The well-known promptness and skill of Americans in organizing a new community result from the fact that hundreds of thousands of Americans—and their fathers before them—have had practice in managing public af-

fairs. To get this practice costs time, labor, and vitality, which in a despotic or oligarchic state are seldom spent in this direction.

The successful establishment and support of religious institutions,—churches, seminaries, and religious charities,—upon a purely voluntary system, is another unprecedented achievement of the American democracy. In only three generations American democratic society has effected the complete separation of church and state, a reform which no other people has ever attempted. Yet religious institutions are not stinted in the United States; on the contrary, they abound and thrive, and all alike are protected and encouraged, but not supported, by the state. Who has taken up the work which the state has relinquished? Somebody has had to do it, for the work is done. Who provides the money to build churches, pay salaries, conduct missions, and educate ministers? Who supplies the brains for organizing and maintaining these various activities? This is the work, not of a few officials, but of millions of intelligent and devoted men and women scattered through all the villages and cities of the broad land. The maintenance of churches, seminaries, and charities by voluntary contributions and by the administrative labors of volunteers, implies an enormous and incessant expenditure of mental and moral force. It is a force which must ever be renewed from genera-

tion to generation; for it is a personal force, constantly expiring, and as constantly to be replaced. Into the maintenance of the voluntary system in religion has gone a good part of the moral energy which three generations have been able to spare from the work of getting a living; but it is worth the sacrifice, and will be accounted in history one of the most remarkable feats of American public spirit and faith in freedom.

A similar exhibition of diffused mental and moral energy has accompanied the establishment and the development of a system of higher instruction in the United States, with no inheritance of monastic endowments, and no gifts from royal or ecclesiastical personages disposing of great resources derived from the state, and with but scanty help from the public purse. Whoever is familiar with the colleges and universities of the United States knows that the creation of these democratic institutions has cost the life-work of thousands of devoted men. At the sacrifice of other aspirations, and under heavy discouragements and disappointments, but with faith and hope, these teachers and trustees have built up institutions, which, however imperfect, have cherished scientific enthusiasm, fostered piety, literature, art, and maintained the standards of honor and public duty, and steadily kept in view the ethical ideas which democracy cherishes. It has been a popular work, to which

large numbers of people in successive generations have contributed of their substance or of their labor. The endowment of institutions of education, including libraries and museums, by private persons in the United States, is a phenomenon without precedent or parallel, and is a legitimate effect of democratic institutions. Under a tyranny—were it that of a Marcus Aurelius [1]—or an oligarchy—were it as enlightened as that which now rules Germany—such a phenomenon would be simply impossible. The University of Strasburg was lately established by an imperial decree, and is chiefly maintained out of the revenue of the state. Harvard University has been 250 years in growing to its present stature, and is even now inferior at many points to the new University of Strasburg; but Harvard is the creation of thousands of persons, living and dead, rich and poor, learned and simple, who have voluntarily given it their time, thought, or money, and lavished upon it their affection; Strasburg exists by the mandate of the ruling few directing upon it a part of the product of ordinary taxation. Like the voluntary system in religion, the voluntary system in the higher education fortifies democracy; each demands from the community a large outlay of intellectual activity and moral vigor.

[1] Marcus Aurelius Antoninus (121-180), one of the best of the Roman emperors, author of the famous *Meditations*.

There is another direction in which the people of the United States have spent and are now spending a vast amount of intellectual and moral energy—a direction not, as in the three cases just considered, absolutely peculiar to the American republic, but still highly characteristic of democracy. I mean the service of corporations. Within the last hundred years the American people have invented a new and large application of the ancient principle of incorporation. We are so accustomed to corporations as indispensable agents in carrying on great public works and services, and great industrial or financial operations, that we forget the very recent development of the corporation with limited liability [1] as a common business agent. Prior to 1789 there were only two corporations for business purposes in Massachusetts. The English general statute which provides for incorporation with limited liability dates only from 1855. No other nation has made such general or such successful use of corporate powers as the American—and for the reason that the method is essentially a democratic method, suitable for a country in which great individual or family properties are rare, and small properties are numerous.

[1] That is, "a public company whose members are individually liable for the company's debts only to a specified amount, often not exceeding the amount of stock that each holds."

Freedom of incorporation makes possible great combinations of small capitals, and, while winning the advantages of concentrated management, permits diffused ownership. These merits have been quickly understood and turned to account by the American democracy. The service of many corporations has become even more important than the service of the several States of the Union. The managers of great companies have trusts reposed in them which are matched only in the highest executive offices of the nation; and they are relatively free from the numerous checks and restrictions under which the highest national officials must always act. The activity of corporations, great and small, penetrates every part of the industrial and social body, and their daily maintenance brings into play more mental and moral force than the maintenance of all the governments on the Continent combined.

These propositions can easily be illustrated by actual examples. I find established at Boston, for instance, the headquarters of a railroad corporation which employs 18,000 persons, has gross receipts of about $40,000,000 a year, and on occasion pays its best-paid officer a salary of $35,000. I find there also the central office of a manufacturing establishment which employs more than 6,000 persons, has a gross annual income of more than $7,000,000, and pays its best-paid officer $20,000

a year. The gross receipts of the Pennsylvania Railroad system are $115,000,000 a year, the highest-paid official of the company receives a salary of $30,000, and the whole system employs 100,000 men. A comparison of such figures with the corresponding figures for the prosperous and respectable Commonwealth of Massachusetts is not uninstructive. The gross receipts of the Commonwealth are about $7,000,000 a year, the highest salary it pays is $6,500, and there are not more than 6,000 persons in its employ for any considerable part of the year.

In the light of such facts, it is easy to see some of the reasons why American corporations command the services of men of high capacity and character, who in other countries or in earlier times would have been in the service of the state. In American democratic society corporations supplement the agencies of the state, and their functions have such importance in determining conditions of labor, diffusing comfort and general well-being among millions of people, and utilizing innumerable large streams and little rills of capital, that the upper grades of their service are reached by merit, are filled, as a rule, upon a tenure during good behavior and efficiency, are well paid, and have great dignity and consideration. Of the enormous material benefits which have resulted from the American extension of the principle of in-

corporation, I need say nothing. I wish only to point out that freedom of incorporation, though no longer exclusively a democratic agency, has given strong support to democratic institutions; and that a great wealth of intellect, energy, and fidelity is devoted to the service of corporations by their officers and directors.

The four forms of mental and moral activity which I have been considering—that which maintains political vitality throughout the Federal Union; that which supports unsubsidized religious institutions; that which develops the higher instruction in the arts and sciences, and trains men for all the professions; and that which is applied to the service of corporations—all illustrate the educating influence of democratic institutions—an influence which foreign observers are apt to overlook or underestimate. The ballot is not the only political institution which has educated the American democracy. Democracy is a training-school in which multitudes learn in many ways to take thought for others, to exercise public functions, and to bear public responsibilities.

So many critics of the theory of democracy have maintained that a democratic government would be careless of public obligations, and unjust toward private property, that it will be interesting to inquire what a century of American experience

indicates upon this important point. Has there been any disposition on the part of the American democracy to create exaggerated public debts, to throw the burden of public debts on posterity rather than on the present generation, or to favor in legislation the poorer sort as against the richer, the debtor as against the creditor?

The answer to the question is not doubtful. With the exception of the sudden creation of the great national debt occasioned by the Civil War, the American communities have been very moderate in borrowing, the State debts being for the most part insignificant, and the city debts far below the English standard. Moreover, these democratic communities, with a few local and temporary exceptions, pay their public debts more promptly than any state under the rule of a despot or a class has ever done. The government of the United States has once paid the whole of its public debt, and is in a fair way to perform that feat again. So much for democratic treatment of public obligations.

It is conceivable, however, that the popular masses should think it for their own interest to keep down and pay off public indebtedness, and yet should discriminate in legislation in favor of the majority who are not well off, and against the minority who are. There are two points, and only two points, so far as I know, at which perma-

nent American legislation has, as a fact, intentionally discriminated in favor of the poor. The several States, as a rule, exempt from taxation household effects and personal property to a moderate amount, and the tools of farmers and mechanics. The same articles and a few others like them are also commonly exempted from attachment for debt, together often with a homestead not exceeding in value one thousand dollars. The exemptions from attachment, and even those from taxation, will cover all the property of many poor persons and families; yet this legislation is humane and worthy of respect, being analogous to the common provision which exempts from all taxation persons who, by reason of age or infirmity, may, in the judgment of the assessors, be unable to contribute to the public charges. It is intended to prevent cases of hardship in the collection either of taxes or of debts; and doubtless the exemptions from attachment are designed also to leave to the debtor a fair chance of recovery.

After observing the facts of a full century, one may therefore say of the American democracy that it has contracted public debt with moderation, paid it with unexampled promptness, acquired as good a public credit as the world has ever known, made private property secure, and shown no tendency to attack riches or to subsidize poverty, or in either direction to violate the

fundamental principle of democracy, that all men are equal before the law. The significance of these facts is prodigious. They mean that, as regards private property and its security, a government by the many, for the many, is more to be trusted than any other form of government; and that as regards public indebtedness, an experienced democracy is more likely to exhibit just sentiments and practical good judgment than an oligarchy or a tyranny.

An argument against democracy, which evidently had great weight with Sir Henry Maine, because he supposed it to rest upon the experience of mankind, is stated as follows: Progress and reformation have always been the work of the few, and have been opposed by the many; therefore democracies will be obstructive. This argument is completely refuted by the first century of the American democracy, alike in the field of morals and jurisprudence, and the field of manufactures and trade. Nowhere, for instance, has the great principle of religious toleration been so thoroughly put in practice as in the United States; nowhere have such well-meant and persistent efforts been made to improve the legal status of women; nowhere has the conduct of hospitals, asylums, reformatories, and prisons been more carefully studied; nowhere have

legislative remedies for acknowledged abuses and evils been more promptly and perseveringly sought. There was a certain plausibility in the idea that the multitude, who live by labor in established modes, would be opposed to inventions which would inevitably cause industrial revolutions; but American experience completely upsets this notion. For promptness in making physical forces and machinery do the work of men, the people of the United States surpass incontestably all other peoples. The people that invented and introduced with perfect commercial success the river steamboat, the cotton-gin, the parlor-car and the sleeping-car, the grain-elevator, the street railway—both surface and elevated—the telegraph, the telephone, the rapid printing-press, the cheap book and newspaper, the sewing-machine, the steam fire-engine, agricultural machinery, the pipe-lines for natural oil and gas, and machine-made clothing, boots, furniture, tools, screws, wagons, fire-arms, and watches—this is not a people to vote down or hinder labor-saving invention or beneficent industrial revolution. The fact is that in a democracy the interests of the greater number will ultimately prevail, as they should. It was the stage-drivers and inn-keepers, not the multitude, who wished to suppress the locomotive; it is some publishers and typographical unions, not the mass of the people, who wrongly

imagine that they have an interest in making books dearer than they need be. Furthermore, a just liberty of combination and perfect equality before the law, such as prevail in a democracy, enable men or companies to engage freely in new undertakings at their own risk, and bring them to triumphant success, if success be in them, whether the multitude approve them or not. The consent of the multitude is not necessary to the success of a printing-press which prints twenty thousand copies of a newspaper in an hour, or of a machine cutter which cuts out twenty overcoats at one chop. In short, the notion that democracy will hinder religious, political, and social reformation and progress, or restrain commercial and industrial improvement, is a chimera.

There is another criticism of the working of democratic institutions, more formidable than the last, which the American democracy is in a fair way to dispose of. It is said that democracy is fighting against the best-determined and most peremptory of biological laws, namely, the law of heredity, with which law the social structure of monarchical and oligarchical states is in strict conformity. This criticism fails to recognize the distinction between artificial privileges transmissible without regard to inherited virtues or powers, and inheritable virtues or powers transmissible without regard to hereditary privileges. Artificial

privileges will be abolished by a democracy; natural, inheritable virtues or powers are as surely transmissible under a democracy as under any other form of government. Families can be made just as enduring in a democratic as in an oligarchic State, if family permanence be desired and aimed at. The desire for the continuity of vigorous families, and for the reproduction of beauty, genius, and nobility of character, is universal. "From fairest creatures we desire increase"[1] is the commonest of sentiments. The American multitude will not take the children of distinguished persons on trust; but it is delighted when an able man has an abler son, or a lovely mother a lovelier daughter. That a democracy does not prescribe the close intermarriage which characterizes a strict aristocracy, so-called, is physically not a disadvantage, but a great advantage for the freer society. The French nobility and the English House of Lords furnish good evidence that aristocracies do not succeed in perpetuating select types of intellect or of character.

In the future there will undoubtedly be seen a great increase in the number of permanent families in the United States—families in which honor, education, and property will be transmitted with reasonable certainty; and a fair beginning has already been made. On the quinquennial catalogue

[1] Shakespeare, Sonnet I.

of Harvard University there are about five hundred and sixty family stocks, which have been represented by graduates at intervals for at least one hundred years. On the Yale catalogue there are about four hundred and twenty such family stocks; and it is probable that all other American colleges which have existed one hundred years or more show similar facts in proportion to their age and to the number of their graduates. There is nothing in American institutions to prevent this natural process from extending and continuing. The college graduate who does not send his son to college is a curious exception. American colleges are, indeed, chiefly recruited from the sons of men who were not college-bred themselves; for democratic society is mobile, and permits young men of ability to rise easily from the lower to the higher levels. But on the other hand nothing in the constitution of society forces men down who have once risen, or prevents their children or grandchildren from staying on the higher level if they have the virtue in them.

The interest in family genealogies has much increased of late years, and hundreds of thousands of persons are already recorded in printed volumes which have been compiled and published by voluntary contributions or by the zeal of individuals. In the Harvard University Library are four hundred and fifteen American family gene-

alogies, three quarters of which have been printed since 1860. Many of these families might better be called clans or tribes, so numerous is their membership. Thus of the Northampton Lyman family there were living, when the family genealogy was published in 1872, more than four thousand persons. When some American Galton [1] desires in the next century to study hereditary genius or character under a democracy, he will find ready to his hand an enormous mass of material. There are in the United States one hundred and forty-eight historical societies, most of them recently established, which give a large share of their attention to biography, genealogy, necrology, and kindred topics. Persons and families of local note, the settlement and development of new towns, and the rise of new industries are commemorated by these societies, which are accumulating and preserving materials for the philosophical historian who shall hereafter describe the social condition of a democracy which in a hundred years overran the habitable parts of a continent.

Two things are necessary to a family permanence—education and bodily vigor, in every generation. To secure these two things, the holding and the transmission of moderate properties in families must be so well provided for by law and

[1] Sir Francis Galton (1822-1911), an English scientist and anthropologist.

custom as to be possible for large numbers of families. For the objects in view, great properties are not so desirable as moderate or even small properties, since the transmission of health and education with great properties is not so sure as with small properties. It is worth while to inquire, therefore, what has been accomplished under the reign of the American democracy in the way of making the holding and the transmission of small properties possible. In the first place, safe investments for moderate sums have been greatly multiplied and made accessible, as every trustee knows. Great trust-investment companies have been created expressly to hold money safely, and make it yield a sure though small income. The savings-bank and the insurance company have been brought to every man's door, the latter insuring against almost every kind of disaster to which property and earning capacity are liable. Life insurance has been regulated and fostered, with the result of increasing materially the stability of households and the chances of transmitting education in families. Through these and other agencies it has been made more probable that widows and orphans will inherit property, as well as easier for them to hold that property securely—a very important point in connection with the permanence of families, as may be strikingly illustrated by the single statement that eighteen per cent of

the students in Harvard College have no fathers living. Many new employments have been opened to women, who have thus been enabled more easily to hold families together and educate their children. Finally, society has been saved in great measure from war and revolution, and from the fear of these calamities; and thus family property, as well as happiness, has been rendered more secure.

The holding and the transmission of property in families are, however, only means to two ends —namely, education and health in successive generations. From the first, the American democracy recognized the fact that education was of supreme importance to it—the elementary education for all, the higher for all the naturally selected; but it awakened much later to the necessity of attending to the health of the people. European aristocracies have always secured themselves in a measure against physical degeneration by keeping a large proportion of their men in training as soldiers and sportsmen, and most of their women at ease in country seats. In our democratic society, which at first thought only of work and production, it is now to be seen that public attention is directed more and more to the means of preserving and increasing health and vigor. Some of these means are country schools for city children, country or seaside houses for families, pub-

lic parks and gardens, out-of-door sports, systematic physical training in schools and colleges, vacations for business and professional men, and improvements in the dwellings and the diet of all classes. Democracy leaves marriages and social groups to be determined by natural affiliation or congeniality of tastes and pursuits, which is the effective principle in the association of cultivated persons under all forms of government. So far from having any quarrel with the law of hereditary transmission, it leaves the principle of heredity perfectly free to act; but it does not add to the natural sanctions of that principle an unnecessary bounty of privileges conferred by law.

From this consideration of the supposed conflict between democracy and the law of heredity the transition is easy to my last topic; namely, the effect of democratic institutions on the production of ladies and gentlemen. There can be no question that a general amelioration of manners is brought about in a democracy by public schools, democratic churches, public conveyances without distinction of class, universal suffrage, town-meetings, and all the multifarious associations in which democratic society delights; but this general amelioration might exist, and yet the highest types of manners might fail. Do these fail? On this important point American experience is already interesting, and I think conclusive. Forty years

ago Emerson said it was a chief felicity of our country that it excelled in women. It excels more and more. Who has not seen in public and in private life American women unsurpassable in grace and graciousness, in serenity and dignity, in effluent gladness and abounding courtesy? Now, the lady is the consummate fruit of human society at its best. In all the higher walks of American life there are men whose bearing and aspect at once distinguish them as gentlemen. They have personal force, magnanimity, moderation, and refinement; they are quick to see and to sympathize; they are pure, brave, and firm. These are also the qualities that command success; and herein lies the only natural connection between the possession of property and nobility of character. In a mobile or free society the excellent or noble man is likely to win ease and independence; but it does not follow that under any form of government the man of many possessions is necessarily excellent. On the evidence of my reading and of my personal observation at home and abroad, I fully believe that there is a larger proportion of ladies and gentlemen in the United States than in any other country. This proposition is, I think, true with the highest definition of the term "lady" or "gentleman;" but it is also true, if ladies and gentlemen are only persons who are clean and well-dressed, who speak

gently and eat with their forks. It is unnecessary, however, to claim any superiority for democracy in this respect; enough that the highest types of manners in men and women are produced abundantly on democratic soil.

It would appear then from American experience that neither generations of privileged ancestors, nor large inherited possessions, are necessary to the making of a lady or a gentleman. What is necessary? In the first place, natural gifts. The gentleman is born in a democracy, no less than in a monarchy. In other words, he is a person of fine bodily and spiritual qualities, mostly innate. Secondly, he must have, through elementary education, early access to books, and therefore to great thoughts and high examples. Thirdly, he must be early brought into contact with some refined and noble person—father, mother, teacher, pastor, employer, or friend. These are the only necessary conditions in peaceful times and in law-abiding communities like ours. Accordingly, such facts as the following are common in the United States: One of the numerous children of a small farmer manages to fit himself for college, works his way through college, becomes a lawyer, at forty is a much-trusted man in one of the chief cities of the Union, and is distinguished for the courtesy and dignity of his bearing and speech. The son of a country blacksmith is taught and

helped to a small college by his minister; he himself becomes a minister, has a long fight with poverty and ill-health, but at forty-five holds as high a place as his profession affords, and every line in his face and every tone in his voice betoken the gentleman. The sons and daughters of a successful shopkeeper take the highest places in the most cultivated society of their native place, and well deserve the preëminence accorded to them. The daughter of a man of very imperfect education, who began life with nothing and became a rich merchant, is singularly beautiful from youth to age, and possesses to the highest degree the charm of dignified and gracious manners. A young girl, not long out of school, the child of respectable but obscure parents, marries a public man, and in conspicuous station bears herself with a grace, discretion, and nobleness which she could not have exceeded had her blood been royal for seven generations. Striking cases of this kind will occur to every person in this assembly. They are every-day phenomena in American society. What conclusion do they establish? They prove that the social mobility of a democracy, which permits the excellent and well-endowed of either sex to rise and to seek out each other, and which gives every advantageous variation or sport in a family stock free opportunity to develop, is immeasurably more beneficial to a nation than any selective in-

breeding, founded on class distinctions, which has ever been devised. Since democracy has every advantage for producing in due season and proportion the best human types, it is reasonable to expect that science and literature, music and art, and all the finer graces of society will develop and thrive in America, as soon as the more urgent tasks of subduing a wilderness and organizing society upon an untried plan are fairly accomplished.

Such are some of the reasons drawn from experience for believing that our ship of state is stout and sound; but she sails—

> . . . the sea
> Of storm-engendering liberty—[1]

the happiness of the greatest number her destined haven. Her safety requires incessant watchfulness and readiness. Without trusty eyes on the lookout, and a prompt hand at the wheel, the stoutest ship may be dismantled by a passing squall. It is only intelligence and discipline which carry the ship to its port.

[1] Lowell, *An Ode for the Fourth of July, 1876.*

WAR[1]

RALPH WALDO EMERSON

It has been a favorite study of modern philosophy to indicate the steps of human progress, to watch the rising of a thought in one man's mind, the communication of it to a few, to a small minority, its expansion and general reception, until it publishes itself to the world by destroying the existing laws and institutions, and the generation of new. Looked at in this general and historical way, many things wear a very different face from that they show near by, and one at a time,—and, particularly, war. War, which to sane men at the present day begins to look like an epidemic insanity, breaking out here and there like the cholera or influenza, infecting men's brains instead of their bowels,—when seen in the remote past, in the infancy of society, appears a part of the connection of events, and, in its place, necessary.

As far as history has preserved to us the slow unfoldings of any savage tribe, it is not easy to see how war could be avoided by such wild, passionate, needy, ungoverned, strong-bodied crea-

[1] A lecture delivered in Boston, in March, 1838.

tures. For in the infancy of society, when a thin population and improvidence make the supply of food and of shelter insufficient and very precarious, and when hunger, thirst, ague and frozen limbs universally take precedence of the wants of the mind and the heart, the necessities of the strong will certainly be satisfied at the cost of the weak, at whatever peril of future revenge. It is plain, too, that in the first dawnings of the religious sentiment, *that* blends itself with their passions and is oil to the fire. Not only every tribe has war-gods, religious festivals in victory, but *religious wars.*

The student of history acquiesces the more readily in this copious bloodshed of the early annals, bloodshed in God's name too, when he learns that it is a temporary and preparatory state, and does actively forward the culture of man. War educates the senses, calls into action the will, perfects the physical constitution, brings men into such swift and close collision in critical moments that man measures man. On its own scale, on the virtues it loves, it endures no counterfeit, but shakes the whole society until every atom falls into the place its specific gravity assigns it. It presently finds the value of good sense and of foresight, and Ulysses takes rank next to Achilles. The leaders, picked men of a courage and vigor tried and augmented in fifty battles, are emulous to dis-

tinguish themselves above each other by new merits, as clemency, hospitality, splendor of living. The people imitate the chiefs. The strong tribe, in which war has become an art, attack and conquer their neighbors, and teach them their arts and virtues. New territory, augmented numbers and extended interests call out new virtues and abilities, and the tribe makes long strides. And, finally, when much progress has been made, all its secrets of wisdom and art are disseminated by its invasions. Plutarch, in his essay "On the Fortune of Alexander," considers the invasion and conquest of the East by Alexander as one of the most bright and pleasing pages in history; and it must be owned he gives sound reason for his opinion. It had the effect of uniting into one great interest the divided commonwealths of Greece, and infusing a new and more enlarged public spirit into the councils of their statesmen. It carried the arts and language and philosophy of the Greeks into the sluggish and barbarous nations of Persia, Assyria and India. It introduced the arts of husbandry among tribes of hunters and shepherds. It weaned the Scythians and Persians from some cruel and licentious practices to a more civil way of life. It introduced the sacredness of marriage among them. It built seventy cities, and sowed the Greek customs and humane laws over Asia, and

united hostile nations under one code. It brought different families of the human race together,—to blows at first, but afterwards to truce, to trade and to intermarriage. It would be very easy to show analogous benefits that have resulted from military movements of later ages.

Considerations of this kind lead us to a true view of the nature and office of war. We see it is the subject of all history; that it has been the principal employment of the most conspicuous men; that it is at this moment the delight of half the world, of almost all young and ignorant persons; that it is exhibited to us continually in the dumb show of brute nature, where war between tribes, and between individuals of the same tribe, perpetually rages. The microscope reveals miniature butchery in atomies and infinitely small biters that swim and fight in an illuminated drop of water; and the little globe is but a too faithful miniature of the large.

What does all this war, beginning from the lowest races and reaching up to man, signify? Is it not manifest that it covers a great and beneficent principle, which nature had deeply at heart? What is that principle?—It is self-help. Nature implants with life the instinct of self-help, perpetual struggle to be, to resist opposition, to attain to freedom, to attain to a mastery and the security of a permanent, self-defended being; and

to each creature these objects are made so dear that it risks its life continually in the struggle for these ends.

But whilst this principle, necessarily, is inwrought into the fabric of every creature, yet it is but *one* instinct; and though a primary one, or we may say the very first, yet the appearance of the other instincts immediately modifies and controls this; turns its energies into harmless, useful and high courses, showing thereby what was its ultimate design; and, finally, takes out its fangs. The instinct of self-help is very early unfolded in the coarse and merely brute form of war, only in the childhood and imbecility of the other instincts, and remains in that form only until their development. It is the ignorant and childish part of mankind that is the fighting part. Idle and vacant minds want excitement, as all boys kill cats. Bull-baiting, cockpits and the boxer's ring are the enjoyment of the part of society whose animal nature alone has been developed. In some parts of this country, where the intellectual and moral faculties have as yet scarcely any culture, the absorbing topic of all conversation is whipping; who fought, and which whipped? Of man, boy, or beast, the only trait that much interests the speakers is the pugnacity. And why? Because the speaker has as yet no other image of manly activity and virtue, none of endurance, none of

perseverance, none of charity, none of the attainment of truth. Put him into a circle of cultivated men, where the conversation broaches the great questions that besiege the human reason, and he would be dumb and unhappy, as an Indian in church.

To men of a sedate and mature spirit, in whom is any knowledge or mental activity, the detail of battle becomes insupportably tedious and revolting. It is like the talk of one of those monomaniacs whom we sometimes meet in society, who converse on horses; and Fontenelle [1] expressed a volume of meaning when he said, "I hate war, for it spoils conversation."

Nothing is plainer than that the sympathy with war is a juvenile and temporary state. Not only the moral sentiment, but trade, learning and whatever makes intercourse, conspire to put it down. Trade, as all men know, is the antagonist of war. Wherever there is no property, the people will put on the knapsack for bread; but trade is instantly endangered and destroyed. And, moreover, trade brings men to look each other in the face, and gives the parties the knowledge that these enemies over sea or over the mountain are such men as we; who laugh and grieve, who love and fear, as we do. And learning and art, and

[1] Bernard Le Bovier de Fontenelle (1657-1757), a French man of letters.

especially religion, weave ties that make war look like fratricide, as it is. And as all history is the picture of war, as we have said, so it is no less true that it is the record of the mitigation and decline of war. Early in the eleventh and twelfth centuries, the Italian cities had grown so populous and strong, that they forced the rural nobility to dismantle their castles, which were dens of cruelty, and come and reside in the towns. The Popes, to their eternal honor, declared religious jubilees, during which all hostilities were suspended throughout Christendom, and man had a breathing space. The increase of civility has abolished the use of poison and of torture, once supposed as necessary as navies now. And, finally, the art of war, what with gunpowder and tactics, has made, as all men know, battles less frequent and less murderous.

By all these means, war has been steadily on the decline; and we read with astonishment of the beastly fighting of the old times. Only in Elizabeth's time, out of the European waters, piracy was all but universal. The proverb was,—"No peace beyond the line;" and the seamen shipped on the buccaneer's bargain, "No prey, no pay." The celebrated Cavendish,[1] who was thought in his times a good Christian man, wrote

[1] Sir Thomas Cavendish (1564-1592), the second Englishman to circumnavigate the globe.

thus to Lord Hunsdon, on his return from a voyage round the world:—"September, 1588. It hath pleased Almighty God to suffer me to circumpass the whole globe of the world, entering in at the Strait of Magellan, and returning by the Cape of Buena Esperança;[1] in which voyage, I have either discovered or brought certain intelligence of all the rich places of the world, which were ever discovered by any Christian. I navigated along the coast of Chili, Peru, and New Spain, *where I made great spoils. I burnt and sunk nineteen sail of ships, small and great. All the villages and towns that ever I landed at, I burned and spoiled.* And had I not been discovered upon the coast, I had taken great quantity of treasure. The matter of most profit to me was a great ship of the king's, which I took at California," etc. And the good Cavendish piously begins this statement,—"It hath pleased Almighty God."

Indeed, our American annals have preserved the vestiges of barbarous warfare down to the more recent times. I read in Williams's[2] *History of Maine*, that "Assacombuit, the Sagamore of the Anagunticook tribe, was remarkable for his turpi-

[1] Cape of Good Hope.

[2] Evidently an error. The incident, in approximately the same words, is related in *The History of the State of Maine*, by William Durkee Williamson (1779-1846).

tude and ferocity above all other known Indians; that, in 1705, Vaudreuil[1] sent him to France, where he was introduced to the king. When he appeared at court, he lifted up his hand, and said, 'This hand has slain a hundred and fifty of your majesty's enemies within the territories of New England.' This so pleased the king that he knighted him, and ordered a pension of eight livres a day to be paid him during life." This valuable person, on his return to America, took to killing his own neighbors and kindred, with such appetite that his tribe combined against him, and would have killed him had he not fled his country for ever.

The scandal which we feel in such facts certainly shows that we have got on a little. All history is the decline of war, though the slow decline. All that society has yet gained is mitigation: the doctrine of the right of war still remains.

For ages (for ideas work in ages, and animate vast societies of men) the human race has gone on under the tyranny—shall I so call it?—of this first brutish form of their effort to be men; that is, for ages they have shared so much of the nature of the lower animals, the tiger and the shark, and the savages of the water-drop. They have nearly exhausted all the good and all the evil of

[1] Philippe de Rigaud, Marquis de Vaudreuil (1641?-1725), Governor-General of Canada.

this form: they have held as fast to this degradation as their worst enemy could desire; but all things have an end, and so has this. The eternal germination of the better has unfolded new powers, new instincts, which were really concealed under this rough and base rind. The sublime question has startled one and another happy soul in different quarters of the globe,—Cannot love be, as well as hate? Would not love answer the same end, or even a better? Cannot peace be, as well as war?

This thought is no man's invention, neither St. Pierre's nor Rousseau's, but the rising of the general tide in the human soul,—and rising highest, and first made visible, in the most simple and pure souls, who have therefore announced it to us beforehand; but presently we all see it. It has now become so distinct as to be a social thought: societies can be formed on it. It is expounded, illustrated, defined, with different degrees of clearness; and its actualization, or the measures it should inspire, predicted according to the light of each seer.

The idea itself is the epoch; the fact that it has become so distinct to any small number of persons as to become a subject of prayer and hope, of concert and discussion,—*that* is the commanding fact. This having come, much more will follow. Revolutions go not backward. The star once risen, though only one man in the hemisphere has yet

seen its upper limb in the horizon, will mount and mount, until it becomes visible to other men, to multitudes, and climbs the zenith of all eyes. And so it is not a great matter how long men refuse to believe the advent of peace: war is on its last legs; and a universal peace is as sure as is the prevalence of civilization over barbarism, of liberal governments over feudal forms. The question for us is only *How soon?*

That the project of peace should appear visionary to great numbers of sensible men; should appear laughable even, to numbers; should appear to the grave and good-natured to be embarrassed with extreme practical difficulties,—is very natural. "This is a poor, tedious society of yours," they say: "we do not see what good can come of it. Peace! why, we are all at peace now. But if a foreign nation should wantonly insult or plunder our commerce, or, worse yet, should land on our shores to rob and kill, you would not have us sit, and be robbed and killed? You mistake the times; you over-estimate the virtue of men. You forget that the quiet which now sleeps in cities and in farms, which lets the wagon go unguarded and the farm-house unbolted, rests on the perfect understanding of all men that the musket, the halter and the jail stand behind there, ready to punish any disturber of it. All admit that this would be the best policy, if the world were all a church, if

all men were the best men, if all would agree to accept this rule. But it is absurd for one nation to attempt it alone."

In the first place, we answer that we never make much account of objections which merely respect the actual state of the world at this moment, but which admit the general expediency and permanent excellence of the project. What is the best must be the true; and what is true—that is, what is at bottom fit and agreeable to the constitution of man—must at last prevail over all obstruction and all opposition. There is no good now enjoyed by society that was not once as problematical and visionary as this. It is the tendency of the true interest of man to become his desire and steadfast aim.

But, further, it is a lesson which all history teaches wise men, to put trust in ideas, and not in circumstances. We have all grown up in the sight of frigates and navy yards, of armed forts and islands, of arsenals and militia. The reference to any foreign register will inform us of the number of thousand or million men that are now under arms in the vast colonial system of the British empire, of Russia, Austria and France; and one is scared to find at what cost the peace of the globe is kept. This vast apparatus of artillery, of fleets, of stone bastions and trenches and embankments; this incessant patrolling of

sentinels; this waving of national flags; this reveille and evening gun; this martial music and endless playing of marches and singing of military and naval songs seem to us to constitute an imposing actual, which will not yield in centuries to the feeble, deprecatory voices of a handful of friends of peace.

Thus always we are daunted by the appearances; not seeing that their whole value lies at bottom in the state of mind. It is really a thought that built this portentous war-establishment, and a thought shall also melt it away. Every nation and every man instantly surround themselves with a material apparatus which exactly corresponds to their moral state, or their state of thought. Observe how every truth and every error, each a *thought* of some man's mind, clothes itself with societies, houses, cities, language, ceremonies, newspapers. Observe the ideas of the present day, —orthodoxy, skepticism, missions, popular education, temperance, anti-masonry, anti-slavery; see how each of these abstractions has embodied itself in an imposing apparatus in the community; and how timber, brick, lime and stone have flown into convenient shape, obedient to the master-idea reigning in the minds of many persons.

You shall hear, some day, of a wild fancy which some man has in his brain, of the mischief of secret oaths. Come again one or two years after-

wards, and you shall see it has built great houses of solid wood and brick and mortar. You shall see a hundred presses printing a million sheets; you shall see men and horses and wheels made to walk, run and roll for it: this great body of matter thus executing that one man's wild thought. This happens daily, yearly about us, with half thoughts, often with flimsy lies, pieces of policy and speculation. With good nursing they will last three or four years before they will come to nothing. But when a truth appears,—as, for instance, a perception in the wit of one Columbus that there is land in the Western Sea; though he alone of all men has that thought, and they all jeer,—it will build ships; it will build fleets; it will carry over half Spain and half England; it will plant a colony, a state, nations and half a globe full of men.

We surround ourselves always, according to our freedom and ability, with true images of ourselves in things, whether it be ships or books or cannons or churches. The standing army, the arsenal, the camp and the gibbet do not appertain to man. They only serve as an index to show where man is now; what a bad, ungoverned temper he has; what an ugly neighbor he is; how his affections halt; how low his hope lies. He who loves the bristle of bayonets only sees in their glitter what beforehand he feels in his heart. It is avarice and

hatred; it is that quivering lip, that cold, hating eye, which built magazines and powder-houses.

It follows, of course, that the least change in the man will change his circumstances; the least enlargement of his ideas, the least mitigation of his feelings in respect to other men; if, for example, he could be inspired with a tender kindness to the souls of men, and should come to feel that every man was another self with whom he might come to join, as left hand works with right. Every degree of the ascendancy of this feeling would cause the most striking changes of external things: the tents would be struck; the man-of-war would rot ashore; the arms rust; the cannon would become street-posts; the pikes, a fisher's harpoon; the marching regiment would be a caravan of emigrants, *peaceful* pioneers at the fountains of the Wabash and the Missouri. And so it must and will be: bayonet and sword must first retreat a little from their ostentatious prominence; then quite hide themselves, as the sheriff's halter does now, inviting the attendance only of relations and friends; and then, lastly, will be transferred to the museums of the curious, as poisoning and torturing tools are at this day.

War and peace thus resolve themselves into a mercury of the state of cultivation. At a certain stage of his progress, the man fights, if he be of a sound body and mind. At a certain higher

stage, he makes no offensive demonstration, but is alert to repel injury, and of an unconquerable heart. At a still higher stage, he comes into the region of holiness; passion has passed away from him; his warlike nature is all converted into an active medicinal principle; he sacrifices himself, and accepts with alacrity wearisome tasks of denial and charity; but, being attacked, he bears it and turns the other cheek, as one engaged, throughout his being, no longer to the service of an individual, but to the common soul of all men.

Since the peace question has been before the public mind, those who affirm its right and expediency have naturally been met with objections more or less weighty. There are cases frequently put by the curious,—moral problems, like those problems in arithmetic which in long winter evenings the rustics try the hardness of their heads in ciphering out. And chiefly it is said,—Either accept this principle for better, for worse, carry it out to the end, and meet its absurd consequences; or else, if you pretend to set an arbitrary limit, a " Thus far, no farther," then give up the principle, and take that limit which the common sense of all mankind has set, and which distinguishes offensive war as criminal, defensive war as just. Otherwise, if you go for no war, then be consistent, and give up self-defence in the highway, in your own house. Will you push it thus

far? Will you stick to your principle of non-resistance when your strong-box is broken open, when your wife and babes are insulted and slaughtered in your sight? If you say yes, you only invite the robber and assassin; and a few bloody-minded desperadoes would soon butcher the good.

In reply to this charge of absurdity on the extreme peace doctrine, as shown in the supposed consequences, I wish to say that such deductions consider only one half of the fact. They look only at the passive side of the friend of peace; only at his passivity; they quite omit to consider his activity. But no man, it may be presumed, ever embraced the cause of peace and philanthropy for the sole end and satisfaction of being plundered and slain. A man does not come the length of the spirit of martyrdom without some active purpose, some equal motive, some flaming love. If you have a nation of men who have risen to that height of moral cultivation that they will not declare war or carry arms, for they have not so much madness left in their brains, you have a nation of lovers, of benefactors, of true, great and able men. Let me know more of that nation; I shall not find them defenceless, with idle hands swinging at their sides. I shall find them men of love, honor and truth; men of an immense industry; men whose influence is felt to the end of the

earth; men whose very look and voice carry the sentence of honor and shame; and all forces yield to their energy and persuasion. Whenever we see the doctrine of peace embraced by a nation, we may be assured it will not be one that invites injury; but one, on the contrary, which has a friend in the bottom of the heart of every man, even of the violent and the base; one against which no weapon can prosper; one which is looked upon as the asylum of the human race and has the tears and the blessings of mankind.

In the second place, as far as it respects individual action in difficult and extreme cases, I will say, such cases seldom or never occur to the good and just man; nor are we careful to say, or even to know, what in such crises is to be done. A wise man will never impawn his future being and action, and decide beforehand what he shall do in a given extreme event. Nature and God will instruct him in that hour.

The question naturally arises, How is this new aspiration of the human mind to be made visible and real? How is it to pass out of thoughts into things?

Not, certainly, in the first place, *in the way of routine and mere forms*,—the universal specific of modern politics; not by organizing a society, and going through a course of resolutions and public manifestoes, and being thus formally accredited

to the public and to the civility of the newspapers. We have played this game to tediousness. In some of our cities they choose noted duellists as presidents and officers of anti-duelling societies. Men who love that bloated vanity called public opinion think all is well if they have once got their bantling through a sufficient course of speeches and cheerings, of one, two, or three public meetings; as if *they* could do anything: they vote and vote, cry hurrah on both sides, no man responsible, no man caring a pin. The next season, an Indian war, or an aggression on our commerce by Malays; or the party this man votes with have an appropriation to carry through Congress: instantly he wags his head the other way, and cries, Havoc and war!

This is not to be carried by public opinion, but by private opinion, by private conviction, by private, dear and earnest love. For the only hope of this cause is in the increased insight, and it is to be accomplished by the spontaneous teaching, of the cultivated soul, in its secret experience and meditation,—that it is now time that it should pass out of the state of beast into the state of man; it is to hear the voice of God, which bids the devils that have rended and torn him come out of him and let him now be clothed and walk forth in his right mind.

Nor, in the next place, is the peace principle

to be carried into effect by fear. It can never be defended, it can never be executed, by cowards. Everything great must be done in the spirit of greatness. The manhood that has been in war must be transferred to the cause of peace, before war can lose its charm, and peace be venerable to men.

The attractiveness of war shows one thing through all the throats of artillery, the thunders of so many sieges, the sack of towns, the jousts of chivalry, the shocks of hosts,—this namely, the conviction of man universally, that a man should be himself responsible, with goods, health and life, for his behavior; that he should not ask of the State protection; should ask nothing of the State; should be himself a kingdom and a state; fearing no man; quite willing to use the opportunities and advantages that good government throw in his way, but nothing daunted, and not really the poorer if government, law and order went by the board; because in himself reside infinite resources; because he is sure of himself, and never needs to ask another what in any crisis it behooves him to do.

What makes to us the attractiveness of the Greek heroes? of the Roman? What makes the attractiveness of that romantic style of living which is the material of ten thousand plays and romances, from Shakspeare to Scott; the feudal

baron, the French, the English nobility, the Warwicks, Plantagenets? It is their absolute self-dependence. I do not wonder at the dislike some of the friends of peace have expressed at Shakspeare. The veriest churl and Jacobin cannot resist the influence of the style and manners of these haughty lords. We are affected, as boys and barbarians are, by the appearance of a few rich and wilful gentlemen, who take their honor into their own keeping, defy the world, so confident are they of their courage and strength, and whose appearance is the arrival of so much life and virtue. In dangerous times they are presently tried, and therefore their name is a flourish of trumpets. They, at least, affect us as a reality. They are not shams, but the substance of which that age and world is made. They are true heroes for their time. They make what is in their minds the greatest sacrifice. They will, for an injurious word, peril all their state and wealth, and go to the field. Take away that principle of responsibleness, and they become pirates and ruffians.

This self-subsistency is the charm of war; for this self-subsistency is essential to our idea of man. But another age comes, a truer religion and ethics open, and a man puts himself under the dominion of principles. I see him to be the servant of truth, of love and of freedom, and immovable in the waves of the crowd. The man of principle, that

is, the man who, without any flourish of trumpets, titles of lordship or train of guards, without any notice of his action abroad, expecting none, takes in solitude the right step uniformly, on his private choice and disdaining consequences,—does not yield, in my imagination, to any man. He is willing to be hanged at his own gate, rather than consent to any compromise of his freedom or the suppression of his conviction. I regard no longer those names that so tingled in my ear. This is a baron of a better nobility and a stouter stomach.

The cause of peace is not the cause of cowardice. If peace is sought to be defended or preserved for the safety of the luxurious and the timid, it is a sham, and the peace will be base. War is better, and the peace will be broken. If peace is to be maintained, it must be by brave men, who have come up to the same height as the hero, namely, the will to carry their life in their hand, and stake it at any instant for their principle, but who have gone one step beyond the hero, and will not seek another man's life;—men who have, by their intellectual insight or else by their moral elevation, attained such a perception of their own intrinsic worth, that they do not think property or their own body a sufficient good to be saved by such dereliction of principle as treating a man like a sheep.

If the universal cry for reform of so many in-

veterate abuses, with which society rings,—if the desire of a large class of young men for a faith and hope, intellectual and religious, such as they have not yet found, be an omen to be trusted; if the disposition to rely more in study and in action on the unexplored riches of the human constitution,—if the search of the sublime laws of morals and the sources of hope and trust, in man, and not in books, in the present, and not in the past, proceed; if the rising generation can be provoked to think it unworthy to nestle into every abomination of the past, and shall feel the generous darings of austerity and virtue, then war has a short day, and human blood will cease to flow.

It is of little consequence in what manner, through what organs, this purpose of mercy and holiness is effected. The proposition of the Congress of Nations is undoubtedly that at which the present fabric of our society and the present course of events do point. But the mind, once prepared for the reign of principles, will easily find modes of expressing its will. There is the highest fitness in the place and time in which this enterprise is begun. Not in an obscure corner, not in a feudal Europe, not in an antiquated appanage where no onward step can be taken without rebellion, is this seed of benevolence laid in the furrow, with tears of hope; but in this broad America of

God and man, where the forest is only now falling, or yet to fall, and the green earth opened to the inundation of emigrant men from all quarters of oppression and guilt; here, where not a family, not a few men, but mankind, shall say what shall be; here, we ask, Shall it be War, or shall it be Peace?

THE MORAL EQUIVALENT OF WAR[1]

WILLIAM JAMES

The war against war is going to be no holiday excursion or camping party. The military feelings are too deeply grounded to abdicate their place among our ideals until better substitutes are offered than the glory and shame that come to nations as well as to individuals from the ups and downs of politics and the vicissitudes of trade. There is something highly paradoxical in the modern man's relation to war. Ask all our millions, north and south, whether they would vote now (were such a thing possible) to have our war for the Union expunged from history, and the record of a peaceful transition to the present time substituted for that of its marches and battles, and probably hardly a handful of eccentrics would say yes. Those ancestors, those efforts, those memories and

[1] This essay was written for and first published by the American Association for International Conciliation; it appears also in a volume of the author's collected essays entitled *Memories and Studies* (Longmans, Green, & Co.). Reprinted with the generous approval of the American Association and of Henry James, Junior.

legends, are the most ideal part of what we now own together, a sacred spiritual possession worth more than all the blood poured out. Yet ask those same people whether they would be willing in cold blood to start another civil war now to gain another similar possession, and not one man or woman would vote for the proposition. In modern eyes, precious though wars may be, they must not be waged solely for the sake of the ideal harvest. Only when forced upon one, only when an enemy's injustice leaves us no alternative, is a war now thought permissible.

It was not thus in ancient times. The earlier men were hunting men, and to hunt a neighboring tribe, kill the males, loot the village and possess the females, was the most profitable, as well as the most exciting, way of living. Thus were the more martial tribes selected, and in chiefs and peoples a pure pugnacity and love of glory came to mingle with the more fundamental appetite for plunder.

Modern war is so expensive that we feel trade to be a better avenue to plunder; but modern man inherits all the innate pugnacity and all the love of glory of his ancestors. Showing war's irrationality and horror is of no effect upon him. The horrors make the fascination. War is the *strong* life; it is life *in extremis;* [1] war-taxes are the only

[1] At the highest pitch.

ones men never hesitate to pay, as the budgets of all nations show us.

History is a bath of blood. The Iliad is one long recital of how Diomedes and Ajax, Sarpedon and Hector *killed*. No detail of the wounds they made is spared us, and the Greek mind fed upon the story. Greek history is a panorama of jingoism and imperialism—war for war's sake, all the citizens being warriors. It is horrible reading, because of the irrationality of it all—save for the purpose of making "history"—and the history is that of the utter ruin of a civilization in intellectual respects perhaps the highest the earth has ever seen.

Those wars were purely piratical. Pride, gold, women, slaves, excitement, were their only motives. In the Peloponnesian war, for example, the Athenians ask the inhabitants of Melos (the island where the "Venus of Milo" was found), hitherto neutral, to own their lordship. The envoys meet, and hold a debate which Thucydides gives in full, and which, for sweet reasonableness of form, would have satisfied Matthew Arnold. "The powerful exact what they can," said the Athenians, "and the weak grant what they must." When the Meleans say that sooner than be slaves they will appeal to the gods, the Athenians reply, "Of the gods we believe and of men we know, that, by a law of their nature, wherever they can rule they

will. This law was not made by us, and we are not the first to have acted upon it; we did but inherit it, and we know that you and all mankind, if you were as strong as we are, would do as we do. So much for the gods; we have told you why we expect to stand as high in their good opinion as you." Well, the Melians still refused, and their town was taken. "The Athenians," Thucydides quietly says, "thereupon put to death all who were of military age and made slaves of the women and children. They then colonized the island, sending thither five hundred settlers of their own."

Alexander's career was piracy pure and simple, nothing but an orgy of power and plunder, made romantic by the character of the hero. There was no rational principle in it, and the moment he died his generals and governors attacked one another. The cruelty of those times is incredible. When Rome finally conquered Greece, Paulus Æmilius was told by the Roman Senate to reward his soldiers for their toil by "giving" them the old kingdom of Epirus. They sacked seventy cities and carried off a hundred and fifty thousand inhabitants as slaves. How many they killed I know not; but in Etolia they killed all the senators, five hundred and fifty in number. Brutus was "the noblest Roman of them all," but to reanimate his soldiers on the eve of Philippi he similarly prom-

ises to give them the cities of Sparta and Thessalonica to ravage, if they win the fight.

Such was the gory nurse that trained societies to cohesiveness. We inherit the warlike type; and for most of the capacities of heroism that the human race is full of we have to thank this cruel history. Dead men tell no tales, and if there were any tribes of other type than this they have left no survivors. Our ancestors have bred pugnacity into our bone and marrow, and thousands of years of peace won't breed it out of us. The popular imagination fairly fattens on the thought of wars. Let public opinion once reach a certain fighting pitch, and no ruler can withstand it. In the Boer war both governments began with bluff but couldn't stay there, the military tension was too much for them. In 1898 our people had read the word WAR in letters three inches high for three months in every newspaper. The pliant politician McKinley was swept away by their eagerness, and our squalid war with Spain became a necessity.

At the present day, civilized opinion is a curious mental mixture. The military instincts and ideals are as strong as ever, but are confronted by reflective criticisms which sorely curb their ancient freedom. Innumerable writers are showing up the bestial side of military service. Pure loot and mastery seem no longer morally avowable motives, and pretexts must be found for attributing them

solely to the enemy. England and we, our army and navy authorities repeat without ceasing, arm solely for "peace," Germany and Japan it is who are bent on loot and glory. "Peace" in military mouths to-day is a synonym for "war expected." The word has become a pure provocative, and no government wishing peace sincerely should allow it ever to be printed in a newspaper. Every up-to-date dictionary should say that "peace" and "war" mean the same thing, now *in posse*,[1] now *in actu*.[2] It may even reasonably be said that the intensely sharp competitive *preparation* for war by the nations *is the real war*, permanent, unceasing; and that the battles are only a sort of public verification of the mastery gained during the "peace"-interval.

It is plain that on this subject civilized man has developed a sort of double personality. If we take European nations, no legitimate interest of any one of them would seem to justify the tremendous destructions which a war to compass it would necessarily entail. It would seem as though common sense and reason ought to find a way to reach agreement in every conflict of honest interests. I myself think it our bounden duty to believe in such international rationality as possible. But, as things stand, I see how desperately hard it is to bring the peace-party and the war-party

[1] Potential. [2] Actual.

together, and I believe that the difficulty is due to certain deficiencies in the program of pacificism which set the militarist imagination strongly, and to a certain extent justifiably, against it. In the whole discussion both sides are on imaginative and sentimental ground. It is but one utopia against another, and everything one says must be abstract and hypothetical. Subject to this criticism and caution, I will try to characterize in abstract strokes the opposite imaginative forces, and point out what to my own very fallible mind seems the best utopian hypothesis, the most promising line of conciliation.

In my remarks, pacificist though I am, I will refuse to speak of the bestial side of the war-*régime* (already done justice to by many writers) and consider only the higher aspects of militaristic sentiment. Patriotism no one thinks discreditable; nor does any one deny that war is the romance of history. But inordinate ambitions are the soul of every patriotism, and the possibility of violent death the soul of all romance. The militarily patriotic and romantic-minded everywhere, and especially the professional military class, refuse to admit for a moment that war may be a transitory phenomenon in social evolution. The notion of a sheep's paradise like that revolts, they say, our higher imagination. Where then would be the steeps of life? If war had ever stopped, we should

have to re-invent it, on this view, to redeem life from flat degeneration.

Reflective apologists for war at the present day all take it religiously. It is a sort of sacrament. Its profits are to the vanquished as well as to the victor; and quite apart from any question of profit, it is an absolute good, we are told, for it is human nature at its highest dynamic. Its "horrors" are a cheap price to pay for rescue from the only alternative supposed, of a world of clerks and teachers, of co-education and zoöphily, of "consumer's leagues" and "associated charities," of industrialism unlimited, and feminism unabashed. No scorn, no hardness, no valor any more! Fie upon such a cattleyard of a planet!

So far as the central essence of this feeling goes, no healthy minded person, it seems to me, can help to some degree partaking of it. Militarism is the great preserver of our ideals of hardihood, and human life with no use for hardihood would be contemptible. Without risks or prizes for the darer, history would be insipid indeed; and there is a type of military character which every one feels that the race should never cease to breed, for every one is sensitive to its superiority. The duty is incumbent on mankind, of keeping military characters in stock—of keeping them, if not for use, then as ends in themselves and as pure pieces of perfection,—so that Roose-

velt's weaklings and mollycoddles may not end by making everything else disappear from the face of nature.

This natural sort of feeling forms, I think, the innermost soul of army-writings. Without any exception known to me, militarist authors take a highly mystical view of their subject, and regard war as a biological or sociological necessity, uncontrolled by ordinary psychological checks and motives. When the time of development is ripe the war must come, reason or no reason, for the justifications pleaded are invariably fictitious. War is, in short, a permanent human *obligation.* General Homer Lea, in his recent book, *The Valor of Ignorance,* plants himself squarely on this ground. Readiness for war is for him the essence of nationality, and ability in it the supreme measure of the health of nations.

Nations, General Lea says, are never stationary —they must necessarily expand or shrink, according to their vitality or decrepitude. Japan now is culminating; and by the fatal law in question it is impossible that her statesmen should not long since have entered, with extraordinary foresight, upon a vast policy of conquest—the game in which the first moves were her wars with China and Russia and her treaty with England, and of which the final objective is the capture of the Philippines, the Hawaiian Islands, Alaska, and the whole of

our Coast west of the Sierra Passes. This will give Japan what her ineluctable vocation as a state absolutely forces her to claim, the possession of the entire Pacific Ocean; and to oppose these deep designs we Americans have, according to our author, nothing but our conceit, our ignorance, our commercialism, our corruption, and our feminism. General Lea makes a minute technical comparison of the military strength which we at present could oppose to the strength of Japan, and concludes that the islands, Alaska, Oregon, and Southern California, would fall almost without resistance, that San Francisco must surrender in a fortnight to a Japanese investment, that in three or four months the war would be over, and our republic, unable to regain what it had heedlessly neglected to protect sufficiently, would then "disintegrate," until perhaps some Cæsar should arise to weld us again into a nation.

A dismal forecast indeed! Yet not unplausible, if the mentality of Japan's statesmen be of the Cæsarian type of which history shows so many examples, and which is all that General Lea seems able to imagine. But there is no reason to think that women can no longer be the mothers of Napoleonic or Alexandrian characters; and if these come in Japan and find their opportunity, just such surprises as *The Valor of Ignorance* paints may lurk in ambush for us. Ignorant as we

still are of the innermost recesses of Japanese mentality, we may be foolhardy to disregard such possibilities.

Other militarists are more complex and more moral in their considerations. The *Philosophie des Krieges*,[1] by S. R. Steinmetz, is a good example. War, according to this author, is an ordeal instituted by God, who weighs the nations in its balance. It is the essential form of the State, and the only function in which peoples can employ all their powers at once and convergently. No victory is possible save as the resultant of a totality of virtues, no defeat for which some vice or weakness is not responsible. Fidelity, cohesiveness, tenacity, heroism, conscience, education, inventiveness, economy, wealth, physical health and vigor —there isn't a moral or intellectual point of superiority that doesn't tell, when God holds his assizes and hurls the peoples upon one another. *Die Weltgeschichte ist das Weltgericht;* [2] and Dr. Steinmetz does not believe that in the long run chance and luck play any part in apportioning the issues.

The virtues that prevail, it must be noted, are virtues anyhow, superiorities that count in peaceful as well as in military competition; but the strain on them, being infinitely intenser in the latter case,

[1] *Philosophy of War.*

[2] The history of the world is a judgment upon the world.

makes war infinitely more searching as a trial. No ordeal is comparable to its winnowings. Its dread hammer is the welder of men into cohesive states, and nowhere but in such states can human nature adequately develop its capacity. The only alternative is "degeneration."

Dr. Steinmetz is a conscientious thinker, and his book, short as it is, takes much into account. Its upshot can, it seems to me, be summed up in Simon Patten's word, that mankind was nursed in pain and fear, and that the transition to a "pleasure-economy" may be fatal to a being wielding no powers of defence against its disintegrative influences. If we speak of the *fear of emancipation from the fear-régime*, we put the whole situation into a single phrase; fear regarding ourselves now taking the place of the ancient fear of the enemy.

Turn the fear over as I will in my mind, it all seems to lead back to two unwillingnesses of the imagination, one æsthetic, and the other moral; unwillingness, first, to envisage a future in which army-life, with its many elements of charm, shall be forever impossible, and in which the destinies of peoples shall nevermore be decided quickly, thrillingly, and tragically, by force, but only gradually and insipidly by "evolution"; and, secondly, unwillingness to see the supreme theatre of human strenuousness closed, and the splendid military aptitudes of men doomed to keep always

in a state of latency and never show themselves in action. These insistent unwillingnesses, no less than other æsthetic and ethical insistencies, have, it seems to me, to be listened to and respected. One cannot meet them effectively by mere counter-insistency on war's expensiveness and horror. The horror makes the thrill; and when the question is of getting the extremest and supremest out of human nature, talk of expense sounds ignominious. The weakness of so much merely negative criticism is evident—pacificism makes no converts from the military party. The military party denies neither the bestiality nor the horror, nor the expense; it only says that these things tell but half the story. It only says that war is *worth* them; that, taking human nature as a whole, its wars are its best protection against its weaker and more cowardly self, and that mankind cannot *afford* to adopt a peace-economy.

Pacificists ought to enter more deeply into the æsthetical and ethical point of view of their opponents. Do that first in any controversy, says J. J. Chapman; *then move the point*, and your opponent will follow. So long as anti-militarists propose no substitute for war's disciplinary function, no *moral equivalent* of war, analogous, as one might say, to the mechanical equivalent of heat, so long they fail to realize the full inwardness of the situation. And as a rule they do fail. The duties,

penalties, and sanctions pictured in the utopias they paint are all too weak and tame to touch the military-minded. Tolstoi's pacificism is the only exception to this rule, for it is profoundly pessimistic as regards all this world's values, and makes the fear of the Lord furnish the moral spur provided elsewhere by the fear of the enemy. But our socialistic peace-advocates all believe absolutely in this world's values; and instead of the fear of the Lord and the fear of the enemy, the only fear they reckon with is the fear of poverty if one be lazy. This weakness pervades all the socialistic literature with which I am acquainted. Even in Lowes Dickinson's exquisite dialogue,[1] high wages and short hours are the only forces invoked for overcoming man's distaste for repulsive kinds of labor. Meanwhile men at large still live as they always have lived, under a pain-and-fear economy—for those of us who live in an ease-economy are but an island in the stormy ocean—and the whole atmosphere of present-day utopian literature tastes mawkish and dishwatery to people who still keep a sense for life's more bitter flavors. It suggests, in truth, ubiquitous inferiority.

Inferiority is always with us, and merciless scorn of it is the keynote of the military temper. "Dogs, would you live forever?" shouted Fred-

[1] *Justice and Liberty,* N. Y., 1909. [Author's note.]

erick the Great. "Yes," say our utopians, "let us live forever, and raise our level gradually." The best thing about our "inferiors" to-day is that they are as tough as nails, and physically and morally almost as insensitive. Utopianism would see them soft and squeamish, while militarism would keep their callousness, but transfigure it into a meritorious characteristic, needed by "the service," and redeemed by that from the suspicion of inferiority. All the qualities of a man acquire dignity when he knows that the service of the collectivity that owns him needs them. If proud of the collectivity, his own pride rises in proportion. No collectivity is like an army for nourishing such pride; but it has to be confessed that the only sentiment which the image of pacific cosmopolitan industrialism is capable of arousing in countless worthy breasts is shame at the idea of belonging to *such* a collectivity. It is obvious that the United States of America as they exist to-day impress a mind like General Lea's as so much human blubber. Where is the sharpness and precipitousness, the contempt for life, whether one's own, or another's? Where is the savage "yes" and "no," the unconditional duty? Where is the conscription? Where is the blood-tax? Where is anything that one feels honored by belonging to?

Having said thus much in preparation, I will

now confess my own utopia. I devoutly believe in the reign of peace and in the gradual advent of some sort of a socialistic equilibrium. The fatalistic view of the war-function is to me nonsense, for I know that war-making is due to definite motives and subject to prudential checks and reasonable criticisms, just like any other form of enterprise. And when whole nations are the armies, and the science of destruction vies in intellectual refinement with the sciences of production, I see that war becomes absurd and impossible from its own monstrosity. Extravagant ambitions will have to be replaced by reasonable claims, and nations must make common cause against them. I see no reason why all this should not apply to yellow as well as to white countries, and I look forward to a future when acts of war shall be formally outlawed as between civilized peoples.

All these beliefs of mine put me squarely into the anti-militarist party. But I do not believe that peace either ought to be or will be permanent on this globe, unless the states pacifically organized preserve some of the old elements of army-discipline. A permanently successful peace-economy cannot be a simple pleasure-economy. In the more or less socialistic future towards which mankind seems drifting we must still subject ourselves collectively to those severities which answer to our real position upon this only partly hospitable

globe. We must make new energies and hardihoods continue the manliness to which the military mind so faithfully clings. Martial virtues must be the enduring cement; intrepidity, contempt of softness, surrender of private interest, obedience to command, must still remain the rock upon which states are built—unless, indeed, we wish for dangerous reactions against commonwealths fit only for contempt, and liable to invite attack whenever a centre of crystallization for military minded enterprise gets formed anywhere in their neighborhood.

The war-party is assuredly right in affirming and reaffirming that the martial virtues, although originally gained by the race through war, are absolute and permanent human goods. Patriotic pride and ambition in their military form are, after all, only specifications of a more general competitive passion. They are its first form, but that is no reason for supposing them to be its last form. Men now are proud of belonging to a conquering nation, and without a murmur they lay down their persons and their wealth, if by so doing they may fend off subjection. But who can be sure that *other aspects of one's country* may not, with time and education and suggestion enough, come to be regarded with similarly effective feelings of pride and shame? Why should men not some day feel that it is worth a blood-tax to belong to a collec-

tivity superior in *any* ideal respect? Why should they not blush with indignant shame if the community that owns them is vile in any way whatsoever? Individuals, daily more numerous, now feel this civic passion. It is only a question of blowing on the spark till the whole population gets incandescent, and on the ruins of the old morals of military honor, a stable system of morals of civic honor builds itself up. What the whole community comes to believe in grasps the individual as in a vise. The war-function has grasped us so far; but constructive interests may some day seem no less imperative, and impose on the individual a hardly lighter burden.

Let me illustrate my idea more concretely. There is nothing to make one indignant in the mere fact that life is hard, that men should toil and suffer pain. The planetary conditions once for all are such, and we can stand it. But that so many men, by mere accidents of birth and opportunity, should have a life of *nothing else* but toil and pain and hardness and inferiority imposed upon them, should have *no* vacation, while others natively no more deserving never get any taste of this campaigning life at all,—*this* is capable of arousing indignation in reflective minds. It may end by seeming shameful to all of us that some of us have nothing but campaigning, and others nothing but unmanly ease. If now—and this is my idea—there

were, instead of military conscription a conscription of the whole youthful population to form for a certain number of years a part of the army enlisted against *Nature*, the injustice would tend to be evened out, and numerous other goods to the commonwealth would follow. The military ideals of hardihood and discipline would be wrought into the growing fibre of the people; no one would remain blind as the luxurious classes now are blind, to man's real relations to the globe he lives on, and to the permanently sour and hard foundations of his higher life. To coal and iron mines, to freight trains, to fishing fleets in December, to dishwashing, clothes-washing, and window-washing, to road-building and tunnel-making, to foundries and stoke-holds, and to the frames of skyscrapers, would our gilded youths be drafted off, according to their choice, to get the childishness knocked out of them, and to come back into society with healthier sympathies and soberer ideas. They would have paid their blood-tax, done their own part in the immemorial human warfare against nature; they would tread the earth more proudly, the women would value them more highly, they would be better fathers and teachers of the following generation.

Such a conscription, with the state of public opinion that would have required it, and the many moral fruits it would bear, would preserve in the

midst of a pacific civilization the manly virtues which the military party is so afraid of seeing disappear in peace. We should get toughness without callousness, authority with as little criminal cruelty as possible, and painful work done cheerily because the duty is temporary, and threatens not, as now, to degrade the whole remainder of one's life. I spoke of the "moral equivalent" of war. So far, war has been the only force that can discipline a whole community, and until an equivalent discipline is organized, I believe that war must have its way. But I have no serious doubt that the ordinary prides and shames of social man, once developed to a certain intensity, are capable of organizing such a moral equivalent as I have sketched, or some other just as effective for preserving manliness of type. It is but a question of time, of skillful propagandism, and of opinion-making men seizing historic opportunities.

The martial type of character can be bred without war. Strenuous honor and disinterestedness abound elsewhere. Priests and medical men are in a fashion educated to it, and we should all feel some degree of it imperative if we were conscious of our work as an obligatory service to the state. We should be *owned*, as soldiers are by the army, and our pride would rise accordingly. We could be poor, then, without humiliation, as army officers

now are. The only thing needed henceforward is to inflame the civic temper as past history has inflamed the military temper. H. G. Wells, as usual, sees the centre of the situation. "In many ways," he says, "military organization is the most peaceful of activities. When the contemporary man steps from the street, of clamorous insincere advertisement, push, adulteration, underselling and intermittent employment into the barrack-yard, he steps on to a higher social plane, into an atmosphere of service and co-operation and of infinitely more honorable emulations. Here at least men are not flung out of employment to degenerate because there is no immediate work for them to do. They are fed and drilled and trained for better services. Here at least a man is supposed to win promotion by self-forgetfulness and not by self-seeking. And beside the feeble and irregular endowment of research by commercialism, its little short-sighted snatches at profit by innovation and scientific economy, see how remarkable is the steady and rapid development of method and appliances in naval and military affairs! Nothing is more striking than to compare the progress of civil conveniences which has been left almost entirely to the trader, to the progress in military apparatus during the last few decades. The house-appliances of to-day, for example, are little better than they were fifty years

ago. A house of to-day is still almost as ill-ventilated, badly heated by wasteful fires, clumsily arranged and furnished as the house of 1858. Houses a couple of hundred years old are still satisfactory places of residence, so little have our standards risen. But the rifle or battleship of fifty years ago was beyond all comparison inferior to those we possess; in power, in speed, in convenience alike. No one has a use now for such superannuated things." [1]

Wells adds [2] that he thinks that the conceptions of order and discipline, the tradition of service and devotion, of physical fitness, unstinted exertion, and universal responsibility, which universal military duty is now teaching European nations, will remain a permanent acquisition, when the last ammunition has been used in the fireworks that celebrate the final peace. I believe as he does. It would be simply preposterous if the only force that could work ideals of honor and standards of efficiency into English or American natures should be the fear of being killed by the Germans or the Japanese. Great indeed is Fear; but it is not, as our military enthusiasts believe and try to make us believe, the only stimulus known for awakening the higher ranges of men's spiritual energy. The amount of alteration in public opinion which my

[1] *First and Last Things,* 1908, p. 215. [Author's note.]
[2] *Ibid.,* p. 226. [Author's note.]

utopia postulates is vastly less than the difference between the mentality of those black warriors who pursued Stanley's party on the Congo with their cannibal war-cry of "Meat! Meat!" and that of the "general-staff" of any civilized nation. History has seen the latter interval bridged over: the former one can be bridged over much more easily.

THE END

DISCARD